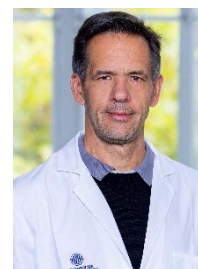


CURRICULUM VITAE

Oliver Langer, Mag.pharm., PhD, Priv.-Doz., Assoc.-Prof.

Department of Clinical Pharmacology, Medical University of Vienna, Austria



Current Position

2018 - present Associate Professor, Medical University of Vienna, Austria

Education and Career History

2010 - 2020 Senior Scientist, AIT Austrian Institute of Technology GmbH, Austria
2006 - 2020 Employment at AIT Austrian Institute of Technology GmbH, Seibersdorf, Austria
2006 Venia docendi (Privatdozent) in Radiopharmaceutical Chemistry, Medical University of Vienna, Austria
2002 - present Employment at Department of Clinical Pharmacology, Medical University of Vienna, Austria
1996 apr - 2000 dec PhD thesis, Department of Clinical Neurosciences, Karolinska Institutet, Stockholm, Sweden, supported by a research fellowship from the EU (ERBCHBGCT940716)
1999 jan - 2000 dec Research associate, Department of Clinical Neurosciences, Karolinska Institutet, Stockholm, Sweden
1996 apr - 1998 dec Research associate, Commissariat à l'énergie atomique (CEA), Service Hospitalier Frédéric Joliot, Orsay, France
1993 march - 1993 oct Master thesis, Department of Clinical Neurosciences, Karolinska Institutet, Stockholm, Sweden, supported by a research fellowship from the Austrian Ministry of Science
1989 sep - 1996 jan University of Vienna (Master of Pharmacy)

Research Interests

Preclinical and clinical PET imaging, radiopharmaceutical sciences, radiotracer development, membrane transporters, translational research, clinical pharmacokinetics, clinical pharmacology, ADME, microdosing, drug development, radiochemistry, Alzheimer's disease, epilepsy, pulmonary drug delivery

Awards/Fellowships

2005 **Hans-Horst-Meyer-Award**, Austrian Pharmacological Society
2003 **THP-ÖGN Award for Natural Scientists in Nuclear Medicine**, Austrian Society of Nuclear Medicine
1996 - 1997 **EU fellowship Human Capital and Mobility** (ERBCHBGCT940716)

Grant Reviewer

SigN Collaborative Grant Call 2009 (A*STAR, Singapore Immunology Network), The Sir Jules Thorn Award for Biomedical Research (UK)

Journal Peer Reviewer (selection)

American Journal of Neuroradiology, Bioorganic and Medicinal Chemistry, British Journal of Pharmacology, Clinical Pharmacology and Therapeutics, Drug Metabolism and Disposition, Epilepsy Research, European Journal of Nuclear Medicine and Molecular Imaging, Journal of Cerebral Blood Flow & Metabolism, Journal of Labelled Compounds and Radiopharmaceuticals, Journal of Nuclear Medicine, Molecular Imaging and Biology, Molecular Pharmaceutics, Molecular Psychiatry, Neurolmage, Nuclear Medicine and Biology, Pharmaceutical Research, PLOSone

International Cooperations (selection)

Commissariat à l'énergie atomique et aux énergies alternatives (CEA), Service Hospitalier Frédéric Joliot, Orsay, France (Dr. Nicolas Tournier); **University of Oslo**, Department of Neuro-/Pathology, Oslo, Norway (Prof. Jens Pahnke); **Trinity College Dublin**, Dublin, Ireland (Prof. Carsten Ehrhardt); **University Hospital Zurich**,

Department of Clinical Pharmacology and Toxicology, Zurich, Switzerland (Prof. Bruno Stieger); **University of Veterinary Medicine Hannover**, Department of Pharmacology, Toxicology & Pharmacy, Hannover, Germany (Prof. Wolfgang Löscher); **University College London**, Institute of Neurology, London, UK (Prof. Matthias Koepf); **The University of Manchester**, Wolfson Molecular Imaging Centre, Manchester, UK (Dr. Marie-Claude Asselin)

Invited Lectures (selection)

- 2017 **Royal Chemical Society**, London, UK
- 2015 **Society of Nuclear Medicine and Molecular Imaging Annual Meeting**, Baltimore, USA
- 2014 **Experimental Biology**, San Diego, USA
- 2014 **Gordon Research Conference Barriers of the CNS**, New London, USA
- 2013 **Gordon Research Conference Multi-Drug Efflux Systems**, Ventura, USA
- 2011 **7th BioMedical Transporters Conference**, Grindelwald, Switzerland
- 2009 **American Epilepsy Society 63rd annual meeting**, Boston, USA

Memberships in Professional Organizations

APHAR (Österreichische Pharmakologische Gesellschaft), **EANM** (European Association of Nuclear Medicine), **ESMI** (European Society for Molecular Imaging), **ÖGNMB** (Österreichische Gesellschaft für Nuklearmedizin und Molekulare Bildgebung), **Phase-0/Microdosing Network** (<https://phase-0microdosing.org/>): member of board of directors, **Hepatocyte Transporter Network** (<https://www.unige.ch/hepatocyte-transporter-network/home/>);

Memberships in Editorial Boards

Pharmaceutics (IF 2021 6.525), MDPI AG, Basel, Switzerland: Section Editor "Pharmacokinetics and Pharmacodynamics"

Grants (as Principal Investigator)

- 2023 - 2026 FWF project: **Effect of OCT/Ns on pulmonary disposition of inhaled drugs** (P 36738-B), 380,462 €
- 2023 - 2025 Pfizer Global Medical Grant – Research collaboration: **Quantitative evaluation of the brain distribution and pharmacokinetics of isavuconazole using positron emission tomography (PET) imaging** (#69735497), 355,724 €
- 2021 - 2024 JPND transnational call: "Novel imaging and brain stimulation methods and technologies related to Neurodegenerative Diseases (JPND2020)": **PETABC** (FFG nr. 882717) 319,561 € (Coordinator: Jens Pahnke, University of Oslo)
- 2020 - 2024 FWF bilateral French-Austrian joint research project (together with Agence National de la Recherche-ANR, France): **¹¹C-Metoclopramide PET in epilepsy (EPIFLUX)** (I 4470-B), 261,952 € (PI: FWF: Oliver Langer and Martin Bauer, ANR: Nicolas Tournier)
- 2020 - 2024 FWF project (Urgent Funding SARS-CoV-2): **Effect of antihypertensive drugs on pulmonary ACE2** (P 33921-B), 358,848 € (Co-PI: Christoph Denk, TU Wien)
- 2019 - 2023 EU Horizon 2020-Innovative Medicines Initiative (IMI): **Investigating Mechanisms and Models Predictive of Accessibility of Therapeutics (IM2PACT) into The Brain** (grant agreement nr. 807015), sub-budget AIT: 211,684 € (coordinator: Zaamel Cader)
- 2019 - 2021 Society for Research Promotion Lower Austria (GFF) project: **PET/MR imaging to assess the role of membrane transporters in pulmonary disposition of inhaled drugs** (LSC17-009), 292,380 €
- 2018 - 2020 FWF KLIF project: **Impact of ABCB1 on neuro-PK of metoclopramide** (KLI 694-B30), 216,270 €
- 2016 - 2019 Society for Research Promotion Lower Austria (GFF) project: **Improving brain distribution of drugs targeted to the brain** (LSC15-003), 292,110 €
- 2015 - 2018 FWF KLIF project: **Influence of ABCG2 SNP on brain distribution of ABCG2 substrates** (KLI 480-B30), 173,601 €
- 2014 - 2017 FWF DACH project (together with Deutsche Forschungsgemeinschaft-DFG, Germany): **PET imaging to assess BBB function in Alzheimer's disease** (I 1609-B24), 319,424 €
- 2012 - 2013 FWF stand-alone project: **Assessment of species differences in P-glycoprotein function at the blood-brain barrier** (P24894-B24), 83,888 €
- 2011 - 2018 Industry funding for preclinical contract research projects at AIT (Probiobdrug AG, Avaant Pharmaceuticals Inc.), 135,000 €

- 2008 - 2012 FP7 collaborative project: **Euripides** (grant agreement nr. 201380), sub-budget AIT: 748,267 € (coordinator: Matthias Koepp, PI AIT: Oliver Langer)
- 2005 - 2006 Österreichische Nationalbank Jubiläumsfonds project: **Combined PET and microdialysis** (project nr. 11058), 45,000 €

Grants (as Co-Investigator)

- 2015 - 2018 Society for Research Promotion Lower Austria project: **Blood-brain barrier ABCG2 function in Alzheimer's disease** (NFB LS14-008), 243,770 € (PI: Thomas Wanek)
- 2013 - 2016 Lower Austria Corporation for Research and Education (NFB) project: **Investigation of drug resistance in glioblastoma - a microPET-MRI study** (NFB LS12-006), 250,000 € (PI: Claudia Kuntner)
- 2012 - 2016 FWF KLIF project: **Assessment of multidrug resistance in breast cancer** (KLI 139-B00), 150,177 € (PI: Markus Müller)
- 2008 - 2014 FWF SFB 35 sub-project: **Imaging the distribution of cerebral multidrug transporters in epilepsy patients with PET** (F 3513-B20), 683,308 € (PI: Markus Müller)
- 2008 - 2012 FP7 collaborative project: **Euripides** (grant agreement nr. 201380), sub-budget MUW: 184,720 € (coordinator: Matthias Koepp, PI MUW: Markus Müller)

Current PhD Students (main supervisor)

Matthias Jackwerth	PhD program at Medical University of Vienna N094
Myriam El Biali	PhD program at Medical University of Vienna N094
Michael Wölfl-Duchek	PhD program at Medical University of Vienna N094
Viktoria Zoufal	PhD program at Medical University of Vienna N790

Former PhD Students (main supervisor)

Irene Hernández Lozano	PhD program at Medical University of Vienna N094
Alexander Traxl	PhD program at Medical University of Vienna N790
Severin Mairinger	PhD program at University of Vienna
Thomas Wanek	PhD program at Medical University of Vienna N790
Beatrix Wulkersdorfer	PhD program at Medical University of Vienna N790 (not terminated)
Claudia Wagner	PhD program at Medical University of Vienna N790 (not terminated)

Teaching at University Courses (Medical University of Vienna)

- VO, 562854, Radioisotopes in drug development
- SE, 85004, Dissertantenseminar
- SE, 562972, Methodisches Seminar
- Regular moderator for journal club "Clinical Pharmacology" (502.133) within doctoral program "Preclinical and Clinical Research for Drug Development" (N790)

Functions at Medical University of Vienna

- Senior Supervisor in Doctoral Program of Applied Medical Sciences "Preclinical and Clinical Research for Drug Development" (N790)
- Senior Supervisor in PhD Program "Medical Imaging" (N094)
- Reviewer and examiner/opponent of PhD theses at the Medical University of Vienna, University of Vienna, Vienna University of Technology and Karolinska Institute (Stockholm, Sweden)
- Radiation protection agent ("Strahlenschutzbeauftragter") at the Department of Clinical Pharmacology
- Deputy speaker of the node "Development of Imaging Probes" of the Medical Imaging Cluster – MIC
- Member of the Steering Board of the Preclinical Imaging Laboratory at the Medical University of Vienna
- Member of organizing committee of 1st Donau Symposium "Applied Diagnostics for effective cancer treatment" (September 28-30, 2016, Medical University of Vienna)

Publication list Oliver Langer (1997-2024, * = corresponding author, IF = impact factor, **Top journal**: within first 20% of subject category, according to Clarivate Analytics InCites™ Journal Citation Reports® 2022)

Total number of papers: 173 (143 original research articles, 28 review articles, 1 letter to the editor and 1 editorial)

Number of papers as first, last or corresponding author: 107 (thereof 46 in **Top journals**)

Number of papers as co-author: 66 (thereof 25 in **Top journals**)

H (Hirsch) Index: 42 (Scopus, May 31, 2024)

Overall impact factor (1997-2024): 1076 (582 as first, last or corresponding author)

Overall citations (1997-2024; Scopus, May 31, 2024): 4909 (168 papers)

orcid.org/0000-0002-4048-5781

First, last or corresponding author:

Original research articles:

1. Severin Mairinger, Matthias Jackwerth, Ondřej Soukup, Matthias Blaickner, Clemens Decristoforo, Lukas Nics, Jens Pahnke, Marcus Hacker, Markus Zeitlinger, Oliver Langer. Advancing 6-bromo-7-[¹¹C]methylpurine to clinical use: improved regioselective radiosynthesis, non-clinical toxicity data and human dosimetry estimates. *EJNMMI Radiopharm Chem* 9(1):34 (2024) (**Top**: 30/203, Radiology, Nuclear Medicine & Medical Imaging)
2. Myriam El Biali, Michael Wöfl-Duchek, Matthias Jackwerth, Severin Mairinger, Maria Weber, Karsten Bamminger, Stefan Poschner, Ivo Rausch, Natalie Schindler, Irene Hernández Lozano, Walter Jäger, Lukas Nics, Nicolas Tournier, Marcus Hacker, Markus Zeitlinger, Martin Bauer, Oliver Langer*. St. John's wort extract with a high hyperforin content does not induce P-glycoprotein activity at the human blood-brain barrier. *CTS-Clin Transl Sci* 17(5):e13804 (2024). doi: 10.1111/cts.13804. IF 2022 3.9
3. Irene Hernández-Lozano, Sarah Leterrier, Severin Mairinger, Johann Stanek, Anna S. Zacher, Lara Breyer, Marcus Hacker, Markus Zeitlinger, Jens Pahnke, Nicolas Tournier, Thomas Wanek, Oliver Langer*. Performance and sensitivity of [^{99m}Tc]Tc-sestamibi compared with PET radiotracers to measure P-glycoprotein function in the kidneys and liver. *Mol Pharm* 21(2):932-943 (2024) IF 2022 4.9
4. Myriam El Biali, Sylvain Auvity, Salvatore Cisternino, Maria Smirnova, Marcus Hacker, Markus Zeitlinger, Severin Mairinger, Nicolas Tournier, Martin Bauer, Oliver Langer*. Dissimilar effect of P-glycoprotein and breast cancer resistance protein inhibition on the distribution of erlotinib to the retina and brain in humans and mice. *Mol Pharm* 20(11):5877-5887 (2023) IF 2022 4.9
5. Severin Mairinger, Sarah Leterrier, Thomas Filip, Mathilde Löbsch, Jens Pahnke, Irene Hernández-Lozano, Johann Stanek, Nicolas Tournier, Markus Zeitlinger, Marcus Hacker, Oliver Langer*, Thomas Wanek. [¹¹C]Metoclopramide is a sensitive radiotracer to measure moderate decreases in P-glycoprotein function at the blood-brain barrier. *J Cereb Blood Flow Metab* 44(1): 142-152 (2023) IF 2022 6.3 (**Top**: 26/145, Endocrinology & Metabolism)
6. Severin Mairinger, Irene Hernández-Lozano, Lena Zachhuber, Thomas Filip, Mathilde Löbsch, Markus Zeitlinger, Marcus Hacker, Carsten Ehrhardt, Oliver Langer*. Effect of budesonide on pulmonary activity of multidrug resistance-associated protein 1 assessed with PET imaging in rats. *Eur J Pharm Sci* 184:106414 (2023) IF 2022 4.6
7. Severin Mairinger, Irene Hernández-Lozano, Thomas Filip, Mathilde Löbsch, Johann Stanek, Markus Zeitlinger, Marcus Hacker, Nicolas Tournier, Thomas Wanek, Carsten Ehrhardt, Oliver Langer*. Influence of P-glycoprotein on pulmonary disposition of the model substrate [¹¹C]metoclopramide assessed by PET imaging in rats. *Eur J Pharm Sci* 2023;183:106404 (2023) IF 2022 4.6
8. Irene Hernández-Lozano, Severin Mairinger, Thomas Filip, Mathilde Löbsch, Johann Stanek, Claudia Kuntner, Martin Bauer, Markus Zeitlinger, Marcus Hacker, Thomas H. Helbich, Thomas Wanek, Oliver Langer*. Positron

- emission tomography-based pharmacokinetic analysis to assess renal transporter-mediated drug-drug interactions of antimicrobial drugs. *Antimicrob Agents Chemother* 67(3):e0149322 (2023) IF 2022 4.9
9. Oliver Langer, Jinho Song*, Min Sun Choi, Edith Lackner, Felix Bergmann, Chang Su Yeo, Miwha Kwon, Mi hye Kwon, Jae Hoon Shim, Stephen R. Dueker, Markus Zeitlinger, Martin Bauer*. Accelerator mass spectrometry for quantification of micro- and therapeutic dose diclofenac in microdialysis samples. *Bioanalysis* 14(16):1111-1122 (2022) IF 2022 1.8
 10. Severin Mairinger, Irene Hernández-Lozano, Thomas Filip, Michael Sauberer, Mathilde Löbsch, Johann Stanek, Thomas Wanek, Johannes A. Sake, Thomas Pekar, Carsten Ehrhardt*, Oliver Langer*. Impact of P-gp and BCRP on pulmonary drug disposition assessed by PET imaging in rats. *J Control Release* 349:109-117 (2022) IF 2022 10.8 (Top: 12/277, Pharmacology & Pharmacy)
 11. Michael Wölfl-Duchek, Severin Mairinger, Irene Hernández-Lozano, Thomas Filip, Viktoria Zoufal, Mathilde Löbsch, Johann Stanek, Claudia Kuntner, Thomas Wanek, Martin Bauer, Jens Pahnke, Oliver Langer*. Use of PET imaging to assess the efficacy of thiethylperazine to stimulate cerebral MRP1 transport activity in wild-type and APP/PS1-21 mice. *Int J Mol Sci* 23(12):6514 (2022) <https://doi.org/10.3390/ijms23126514> IF 2022 5.6
 12. Irene Hernández-Lozano, Severin Mairinger, Thomas Filip, Michael Sauberer, Thomas Wanek, Johann Stanek, Johannes A. Sake, Thomas Pekar, Carsten Ehrhardt, Oliver Langer*. PET imaging to assess the impact of P-glycoprotein on pulmonary drug delivery in rats. *J Control Release* 342: 44-52 (2022) IF 2022 10.8 (Top: 12/277, Pharmacology & Pharmacy)
 13. Irene Hernández-Lozano, Severin Mairinger, Alexander Traxl, Michael Sauberer, Thomas Filip, Johann Stanek, Claudia Kuntner, Thomas Wanek, Oliver Langer*. Assessing the functional redundancy between P-gp and BCRP in controlling the brain distribution and biliary excretion of dual substrates with PET imaging in mice. *Pharmaceutics* 13(8):1286 (2021) doi: 10.3390/pharmaceutics13081286 IF 2022 5.4 (Top: 51/277, Pharmacology & Pharmacy)
 14. Solène Marie, Irene Hernández-Lozano, Louise Breuil, Charles Truillet, Shuiying Hu, Alex Sparreboom, Nicolas Tournier, Oliver Langer. Imaging-based characterization of a *Slco2b1*^(-/-) mouse model using [¹¹C]erlotinib and [^{99m}Tc]mebrofenin as probe substrates. *Pharmaceutics* 13(6):918 (2021) doi: 10.3390/pharmaceutics13060918 IF 2022 5.4 (Top: 51/277, Pharmacology & Pharmacy)
 15. Irene Hernández-Lozano, Thomas Wanek, Michael Sauberer, Thomas Filip, Severin Mairinger, Johann Stanek, Alexander Traxl, Rudolf Karch, John D. Schuetz, Oliver Langer*. Influence of ABC transporters on the excretion of ciprofloxacin assessed with PET imaging in mice. *Eur J Pharm Sci* 2021 Aug 1;163:105854. doi: 10.1016/j.ejps.2021.105854. Epub 2021 Apr 15. IF 2022 4.6
 16. Martin Bauer, Sandra Barna, Matthias Blaickner, Konstantin Prosenz, Karsten Bamming, Verena Pichler, Nicolas Tournier, Marcus Hacker, Markus Zeitlinger, Georgios Karanikas, Oliver Langer. Human biodistribution and radiation dosimetry of the P-glycoprotein radiotracer [¹¹C]metoclopramide. *Mol Imaging Biol* 23(2):180-185 (2021) IF 2022 3.1
 17. Irene Hernández-Lozano, Severin Mairinger, Michael Sauberer, Johann Stanek, Thomas Filip, Thomas Wanek, Giuliano Ciarimboli, Nicolas Tournier, Oliver Langer*. Influence of cation transporters (OCTs and MATEs) on the renal and hepatobiliary disposition of [¹¹C]metoclopramide in mice. *Pharm Res* 2021 38(1):127-140 (2021) IF 2022 3.7
 18. Nicolas Tournier*, Sebastien Goutal, Severin Mairinger, Irene Hernández Lozano, Thomas Filip, Michael Sauberer, Fabien Caillé, Louise Breuil, Johann Stanek, Anna F. Freeman, Gaia Novarino, Charles Truillet, Thomas Wanek, Oliver Langer*. Complete inhibition of ABCB1 and ABCG2 at the blood-brain barrier by co-infusion of erlotinib and tariquidar to improve brain delivery of the model ABCB1/ABCG2 substrate [¹¹C]erlotinib. *J Cereb Blood Flow Metab* 41(7):1634-1646 (2021) IF 2022 6.3 (Top: 26/145, Endocrinology & Metabolism)
 19. Martin Bauer*, Karsten Bamming, Verena Pichler, Maria Weber, Simon Binder, Alexandra Maier-Salamon, Ammar Tahir, Walter Jäger, Helmuth Haslacher, Nicolas Tournier, Marcus Hacker, Markus Zeitlinger, Oliver

- Langer*. Impaired clearance from the brain increases the brain exposure to metoclopramide in elderly subjects. *Clin Pharmacol Ther* 109(3):754-761 (2021) IF 2022 6.7 (Top: 29/277, Pharmacology & Pharmacy)
20. Thomas Wanek, Viktoria Zoufal, Mirjam Brackhan, Markus Krohn, Severin Mairinger, Thomas Filip, Michael Sauberer, Johann Stanek, Thomas Pekar, Jens Pahnke, Oliver Langer. Brain distribution of dual ABCB1/ABCG2 substrates is unaltered in a beta-amyloidosis mouse model. *Int J Mol Sci* 21(21):E8245 (2020). doi: 10.3390/ijms21218245 (2020) IF 2022 5.6
 21. Severin Mairinger, Johannes A. Sake, Irene Hernández Lozano, Thomas Filip, Michael Sauberer, Johann Stanek, Thomas Wanek, Carsten Ehrhardt, Oliver Langer*. Assessing the activity of multidrug resistance-associated protein 1 at the lung epithelial barrier. *J Nucl Med* 61(11):1650-1657 (2020) IF 2022 9.3 (Top: 6/135, Radiology, Nuclear Medicine & Medical Imaging)
 22. Beatrix Wulkersdorfer, Martin Bauer, Rudolf Karch, Harald Stefanits, Cécile Philippe, Maria Weber, Thomas Czech, Marie-Claude Menet, Xavier Declèves, Johannes A Hainfellner, Matthias Preusser, Marcus Hacker, Markus Zeitlinger, Markus Müller, Oliver Langer*. Assessment of brain delivery of a model ABCB1/ABCG2 substrate in patients with non-contrast enhancing brain tumors with positron emission tomography. *EJNMMI Res* 9(1):110 (2019) IF 2022 3.2
 23. Irene Hernández Lozano, Martin Bauer, Beatrix Wulkersdorfer, Alexander Traxl, Cécile Philippe, Maria Weber, Stephanie Häusler, Bruno Stieger, Walter Jäger, Severin Mairinger, Thomas Wanek, Marcus Hacker, Markus Zeitlinger, Oliver Langer*. Measurement of hepatic ABCB1 and ABCG2 transport activity with [¹¹C]tariquidar and PET in humans and mice. *Mol Pharm* 17(1):316-326 (2020) IF 2022 4.9
 24. Viktoria Zoufal, Severin Mairinger, Mirjam Brackhan, Markus Krohn, Thomas Filip, Michael Sauberer, Johann Stanek, Thomas Wanek, Nicolas Tournier, Martin Bauer, Jens Pahnke, Oliver Langer*. Imaging P-glycoprotein induction at the blood-brain barrier of a beta-amyloidosis mouse model with ¹¹C-metoclopramide PET. *J Nucl Med* 61:1050-1057 (2020) IF 2022 9.3 (Top: 6/135, Radiology, Nuclear Medicine & Medical Imaging), winner of the Alavi-Mandell Award 2022 of the SNMMI
 25. Pavitra Kannan, András Füredi, Sabina Dizdarevic, Thomas Wanek, Severin Mairinger, Jason Lee, Jeffrey Collins, Theresa Falls, Michael van Dam, Walter Ladno, Divya Maheshwari, Gergely Skazács, Oliver Langer. *In vivo* characterization of [¹⁸F]AVT-011 as a radiotracer for PET imaging of multidrug resistance. *Eur J Nucl Med Mol Imaging* 47(8):2026-2035 (2020) IF 2022 9.1 (Top: 7/135, Radiology, Nuclear Medicine & Medical Imaging)
 26. Viktoria Zoufal, Severin Mairinger, Markus Krohn, Thomas Wanek, Thomas Filip, Michael Sauberer, Johann Stanek, Claudia Kuntner, Jens Pahnke, Oliver Langer*. Measurement of cerebral ABCC1 transport activity in wild-type and APP/PS1-21 mice with positron emission tomography. *J Cereb Blood Flow Metab* 40(5) 954-965 (2020) IF 2022 6.3 (Top: 26/145, Endocrinology & Metabolism), featured as Editor's choice
 27. Viktoria Zoufal, Thomas Wanek, Markus Krohn, Severin Mairinger, Thomas Filip, Michael Sauberer, Johann Stanek, Jens Pahnke, Oliver Langer. Age dependency of cerebral P-glycoprotein function in wild-type and APPPS1 mice measured with PET. *J Cereb Blood Flow Metab* 40(1):150-162 (2020) IF 2022 6.960 (Top: 26/145, Endocrinology & Metabolism)
 28. Irene Hernández Lozano, Rudolf Karch, Martin Bauer, Matthias Blaickner, Akihiro Matsuda, Beatrix Wulkersdorfer, Marcus Hacker, Markus Zeitlinger, Oliver Langer*. Towards improved pharmacokinetic models for the analysis of transporter-mediated hepatic disposition of drug molecules with positron emission tomography. *AAPS J* 21(4):61 (2019) IF 2022 4.5
 29. Alexander Traxl, Severin Mairinger, Thomas Filip, Michael Sauberer, Johann Stanek, Stefan Poschner, Walter Jäger, Viktoria Zoufal, Gaia Novarino, Nicolas Tournier, Martin Bauer, Thomas Wanek, Oliver Langer*. Inhibition of ABCB1 and ABCG2 at the mouse blood-brain barrier with marketed drugs to improve brain delivery of the model ABCB1/ABCG2 substrate [¹¹C]erlotinib. *Mol Pharm* 16(3):1282-1293 (2019) IF 2022 4.9
 30. Nicolas Tournier, Martin Bauer, Verena Pichler, Lukas Nics, Eva-Maria Klebermass, Peter Matzner, Maria Weber, Fabien Caillé, Sylvain Auvity, Solène Marie, Walter Jäger, Wolfgang Wadsak, Marcus Hacker, Markus Zeitlinger, Oliver Langer. Impact of P-glycoprotein function on the brain kinetics of the weak substrate ¹¹C-

- metoclopramide assessed with PET imaging in humans. *J Nucl Med* 60(7):985-991 (2019) IF 2022 9.3 (Top: 6/135, Radiology, Nuclear Medicine & Medical Imaging)
31. Martin Bauer, Rudolf Karch, Beatrix Wulkersdorfer, Cécile Philippe, Lukas Nics, Eva-Maria Klebermass, Maria Weber, Stefan Poschner, Helmuth Haslacher, Walter Jäger, Nicolas Tournier, Wolfgang Wadsak, Marcus Hacker, Markus Zeitlinger, Oliver Langer. A proof-of-concept study to inhibit ABCG2- and ABCB1-mediated efflux transport at the human blood-brain barrier. *J Nucl Med* 60(4):486-491 (2019) IF 2022 9.3 (Top: 6/135, Radiology, Nuclear Medicine & Medical Imaging); Featured Translational Science Article; Letter to the Editor: *J Nucl Med* 61(2):305 (2020).
 32. Viktoria Zoufal, Severin Mairinger, Markus Krohn, Thomas Wanek, Thomas Filip, Michael Sauberer, Johann Stanek, Alexander Traxl, John D. Schuetz, Claudia Kuntner, Jens Pahnke, Oliver Langer*. Influence of multidrug resistance-associated proteins on the excretion of the ABCB1 imaging probe 6-bromo-7-[¹¹C]methylpurine in mice. *Mol Imaging Biol* 21(2):306-316 (2019) IF 2022 3.1
 33. Martin Bauer, Alexander Traxl, Akihiro Matsuda, Rudolf Karch, Cécile Philippe, Lukas Nics, Eva-Maria Klebermass, Beatrix Wulkersdorfer, Maria Weber, Stefan Poschner, Nicolas Tournier, Walter Jäger, Wolfgang Wadsak, Marcus Hacker, Thomas Wanek, Markus Zeitlinger, Oliver Langer*. Effect of rifampicin on the distribution of [¹¹C]erlotinib to the liver, a translational PET study in humans and in mice. *Mol Pharm* 15(10): 4589-98 (2018) IF 2022 4.9
 34. Severin Mairinger, Viktoria Zoufal, Thomas Wanek, Alexander Traxl, Thomas Filip, Michael Sauberer, Johann Stanek, Claudia Kuntner, Jens Pahnke, Markus Müller, Oliver Langer*. Influence of breast cancer resistance protein and P-glycoprotein on tissue distribution and excretion of Ko143 assessed with PET imaging in mice. *Eur J Pharm Sci* 115:212-222 (2018) IF 2022 4,6
 35. Martin Bauer, Akihiro Matsuda, Beatrix Wulkersdorfer, Cécile Philippe, Alexander Traxl, Csilla Laczka, Johann Stanek, Lukas Nics, Eva-Maria Klebermass, Stefan Poschner, Walter Jäger, Izabel Patik, Eva Bakos, Gergely Szakács, Wolfgang Wadsak, Marcus Hacker, Markus Zeitlinger, Oliver Langer*. Influence of OATPs on hepatic disposition of erlotinib measured with positron emission tomography. *Clin Pharmacol Ther* 104(1):139-147 (2018) IF 2022 6.7 (Top: 29/277, Pharmacology & Pharmacy)
 36. Peter Matzner, Manuel Kussmann, Sabine Eberl, Alexandra Maier-Salamon, Walter Jäger, Martin Bauer, Oliver Langer*, Markus Zeitlinger, Wolfgang Pöpl. Pharmacokinetics of tariquidar in rats after intravenous, oral and intraperitoneal administration. *Eur J Drug Metabol Pharmacokinet* 43(5):599-606 (2018) IF 2022 1.9
 37. Alexander Traxl, Taraneh Beikbaghban, Thomas Wanek, Kushtrim Kryeziu, Christine Pirker, Severin Mairinger, Johann Stanek, Thomas Filip, Michael Sauberer, Claudia Kuntner, Walter Berger, Oliver Langer*. [¹¹C]erlotinib PET cannot detect acquired erlotinib resistance in NSCLC tumor xenografts in mice. *Nucl Med Biol* 52:7-15 (2017) IF 2022 3.1
 38. Martin Bauer, Beatrix Wulkersdorfer, Rudolf Karch, Cécile Philippe, Walter Jäger, Johann Stanek, Wolfgang Wadsak, Marcus Hacker, Markus Zeitlinger, Oliver Langer*. Effect of P-glycoprotein inhibition at the blood-brain barrier on brain distribution of (*R*)-[¹¹C]verapamil in elderly vs. young subjects. *Br J Clin Pharmacol* 83(9):1991-1999 (2017) IF 2022 3.4
 39. Akihiro Matsuda, Rudolf Karch, Martin Bauer, Alexander Traxl, Markus Zeitlinger, Oliver Langer*. A prediction method for P-glycoprotein-mediated drug-drug interactions at the human blood-brain barrier from blood concentration-time profiles, validated with PET data. *J Pharm Sci* 106:2780-2786 (2017) IF 2022 3.8
 40. Martin Bauer, Rudolf Karch, Nicolas Tournier, Salvatore Cisternino, Wolfgang Wadsak, Marcus Hacker, Peter Marhofer, Markus Zeitlinger, Oliver Langer*. Assessment of P-glycoprotein transport activity at the human blood-retinal barrier with (*R*)-¹¹C-verapamil PET. *J Nucl Med* 58:678-681 (2017) IF 2022 9.3 (Top: 6/135, Radiology, Nuclear Medicine & Medical Imaging)
 41. Nicolas Tournier, Sebastien Goutal, Sylvain Auvity, Alexander Traxl, Severin Mairinger, Thomas Wanek, Ourkia-Badia Helal, Irène Buvat, Michael Soussan, Fabien Caillé, Oliver Langer. Strategies to inhibit ABCB1- and

- ABCG2-mediated efflux transport of erlotinib at the blood-brain barrier: a PET study on non-human primates. *J Nucl Med* 58:117-122 (2017) IF 2022 9.3 (Top: 6/135, Radiology, Nuclear Medicine & Medical Imaging)
42. Alexander Traxl, Karin Komposch, Elisabeth Glitzner, Thomas Wanek, Severin Mairinger, Oliver Langer*, Maria Sibilia. Hepatocyte-specific deletion of EGFR in mice reduces hepatic Abcg2 transport activity measured with [¹¹C]erlotinib and positron emission tomography. *Drug Metabol Dispos* 45(10):1093-1100 (2017) IF 2022 3.9; featured on the journal cover
 43. Martin Bauer, Matthias Blaickner, Cécile Philippe, Wolfgang Wadsak, Marcus Hacker, Markus Zeitlinger, Oliver Langer. Whole-body distribution and radiation dosimetry of ¹¹C-elacridar and ¹¹C-tariquidar in humans. *J Nucl Med* 57:1265-1268 (2016) IF 2022 9.3 (Top: 6/135, Radiology, Nuclear Medicine & Medical Imaging)
 44. Martin Bauer, Kerstin Römermann, Rudolf Karch, Beatrix Wulkersdorfer, Johann Stanek, Cécile Philippe, Alexandra Maier-Salamon, Helmuth Haslacher, Christof Jungbauer, Wolfgang Wadsak, Walter Jäger, Wolfgang Löscher, Marcus Hacker, Markus Zeitlinger, Oliver Langer*. A pilot PET study to assess the functional interplay between P-glycoprotein and breast cancer resistance protein at the human blood-brain barrier. *Clin Pharmacol Ther* 100(2):131-141 (2016) IF 2022 6.7 (Top: 29/277, Pharmacology & Pharmacy)
 45. Thomas Wanek, Emina Halilbasic, Michele Visentin, Severin Mairinger, Kerstin Römermann, Bruno Stieger, Claudia Kuntner, Markus Müller, Oliver Langer*, Michael Trauner. Influence of 24-nor-ursodeoxycholic acid on hepatic disposition of [¹⁸F]ciprofloxacin, a positron emission tomography study in mice. *J Pharm Sci* 105(1):106-112 (2016) IF 2022 3.8
 46. Alexander Traxl, Thomas Wanek, Severin Mairinger, Johann Stanek, Thomas Filip, Michael Sauberer, Markus Müller, Claudia Kuntner, Oliver Langer*. Breast cancer resistance protein and p-glycoprotein influence in vivo disposition of ¹¹C-erlotinib. *J Nucl Med* 56(12):1930-1936 (2015) IF 2022 9.3 (Top: 6/135, Radiology, Nuclear Medicine & Medical Imaging)
 47. Thomas Wanek, Kerstin Römermann, Severin Mairinger, Johann Stanek, Michael Sauberer, Thomas Filip, Alexander Traxl, Claudia Kuntner, Jens Pahnke, Florian Bauer, Thomas Erker, Wolfgang Löscher, Markus Müller, Oliver Langer*. Factors governing P-glycoprotein-mediated drug-drug interactions at the blood-brain barrier measured with positron emission tomography. *Mol Pharm* 12(9):3214-3225 (2015) IF 2022 4.9
 48. Johann Stanek, Severin Mairinger, Thomas Wanek, Claudia Kuntner, Markus Müller, Oliver Langer*. Automated radiosynthesis of [¹⁸F]ciprofloxacin. *Appl Radiat Isotop* 99:133-137 (2015) IF 2022 1.6
 49. Severin Mairinger, Johann Stanek, Thomas Wanek, Oliver Langer*, Claudia Kuntner. Automated electrophilic radiosynthesis of [¹⁸F]FBPA using a modified nucleophilic GE TRACERlab FX_{FDG}. *Appl Radiat Isotop* 104:124-127 (2015) IF 2022 1.6
 50. Martin Bauer, Rudolf Karch, Markus Zeitlinger, Cécile Philippe, Kerstin Römermann, Johann Stanek, Alexandra Maier-Salamon, Wolfgang Wadsak, Walter Jäger, Marcus Hacker, Markus Müller, Oliver Langer*. Approaching complete inhibition of P-glycoprotein at the human blood-brain barrier: an (*R*)-[¹¹C]verapamil PET study. *J Cereb Blood Flow Metab* 35:743-746 (2015) IF 2022 6.3 (Top: 26/145, Endocrinology & Metabolism)
 51. Thomas Wanek, Alexander Traxl, Jens P Bankstahl, Marion Bankstahl, Michael Sauberer, Oliver Langer*, Claudia Kuntner. [¹⁸F]FDG is not transported by P-glycoprotein and breast cancer resistance protein at the rodent blood-brain barrier. *Nucl Med Biol* 42:585-589 (2015) IF 2022 3.1; featured on the journal cover
 52. Martin Bauer, Rudolf Karch, Markus Zeitlinger, Joan Liu, Matthias J Koepp, Marie-Claude Asselin, Sanjay M Sisodiya, Johannes A Hainfellner, Wolfgang Wadsak, Markus Mitterhauser, Markus Müller, Ekaterina Patarai, Oliver Langer*. In vivo P-glycoprotein function before and after epilepsy surgery. *Neurology* 83:1326-31 (2014) IF 2022 9.9 (Top: 12/212, Clinical Neurology)
 53. Kerstin Römermann, Thomas Wanek, Marion Bankstahl, Jens P Bankstahl, Maren Fedrowitz, Markus Müller, Wolfgang Löscher, Claudia Kuntner, Oliver Langer*. (*R*)-[¹¹C]verapamil is selectively transported by murine and human P-glycoprotein, and not MRP1 and BCRP at the blood-brain barrier. *Nucl Med Biol* 40(7):873-878 (2013) IF 2022 3.1

54. Martin Bauer, Rudolf Karch, Markus Zeitlinger, Johann Stanek, Cécile Philippe, Wolfgang Wadsak, Markus Mitterhauser, Walter Jäger, Helmuth Haslacher, Markus Müller, Oliver Langer*. Interaction of ^{11}C -tariquidar and ^{11}C -elacridar with P-glycoprotein and breast cancer resistance protein at the human blood-brain barrier. *J Nucl Med* 54:1181-1187 (2013) IF 2022 9.3 (Top: 6/135, Radiology, Nuclear Medicine & Medical Imaging)
55. Severin Mairinger, Thomas Wanek, Claudia Kuntner, Yaprak Doenmez, Sabine Strommer, Johann Stanek, Elena Capparelli, Peter Chiba, Markus Müller, Nicola A. Colabufo, Oliver Langer*. Synthesis and preclinical evaluation of the radiolabeled P-glycoprotein inhibitor [^{11}C]MC113. *Nucl Med Biol* 39(8):1219-1225 (2012) IF 2022 3.1
56. Thomas Wanek, Claudia Kuntner, Jens P. Bankstahl, Severin Mairinger, Marion Bankstahl, Johann Stanek, Michael Sauberer, Thomas Filip, Thomas Erker, Markus Müller, Wolfgang Löscher, Oliver Langer*. A novel PET protocol for visualization of breast cancer resistance protein function at the blood-brain barrier. *J Cereb Blood Flow Metab* 32(11):2002-2011 (2012) IF 2022 6.960 (Top: 26/145, Endocrinology & Metabolism)
57. Severin Mairinger, Jens P. Bankstahl, Claudia Kuntner, Kerstin Römermann, Marion Bankstahl, Thomas Wanek, Johann Stanek, Wolfgang Löscher, Markus Müller, Thomas Erker, Oliver Langer. The antiepileptic drug mephobarbital is not transported by P-glycoprotein or multidrug resistance protein 1 at the blood-brain barrier: a positron emission tomography study. *Epilepsy Res* 100 (1-2):93-103 (2012) IF 2022 2.2
58. Thomas Wanek, Claudia Kuntner, Jens P. Bankstahl, Marion Bankstahl, Johann Stanek, Michael Sauberer, Severin Mairinger, Sabine Strommer, Volker Wachek, Wolfgang Löscher, Thomas Erker, Markus Müller, Oliver Langer*. A comparative small-animal PET evaluation of [^{11}C]tariquidar, [^{11}C]elacridar and (*R*)-[^{11}C]verapamil for detection of P-glycoprotein expressing murine breast cancer. *Eur J Nucl Med Mol Imaging* 39(1):149-159 (2012) IF 2022 9.1 (Top: 7/135, Radiology, Nuclear Medicine & Medical Imaging)
59. Martin Bauer, Markus Zeitlinger, Rudolf Karch, Peter Matzneller, Johann Stanek, Walter Jäger, Michaela Böhmendorfer, Wolfgang Wadsak, Markus Mitterhauser, Jens P. Bankstahl, Wolfgang Löscher, Matthias Koepf, Claudia Kuntner, Markus Müller, Oliver Langer. Pgp-mediated interaction between (*R*)-[^{11}C]verapamil and tariquidar at the human blood-brain barrier: a comparison with rat data. *Clin Pharmacol Ther* 91(2):227-233 (2012) IF 2022 6.7 (Top: 29/277, Pharmacology & Pharmacy)
60. Florian Bauer, Thomas Wanek, Severin Mairinger, Johann Stanek, Michael Sauberer, Claudia Kuntner, Zahida Parveen, Peter Chiba, Markus Müller, Oliver Langer*, Thomas Erker. Interaction of HM30181 with P-glycoprotein at the murine blood-brain barrier assessed with positron emission tomography. *Eur J Pharmacol* 696(1-3):18-27 (2012) IF 2022 5.0
61. Bernd Dörner, Claudia Kuntner, Jens P. Bankstahl, Thomas Wanek, Marion Bankstahl, Johann Stanek, Julia Müllauer, Florian Bauer, Severin Mairinger, Wolfgang Löscher, Donald W. Miller, Peter Chiba, Markus Müller, Thomas Erker, Oliver Langer. Radiosynthesis and in vivo evaluation of 1-[^{18}F]fluoroelacridar as a positron emission tomography tracer for P-glycoprotein and breast cancer resistance protein. *Bioorg Med Chem* 19(7):2190-2198 (2011) IF 2022 3.5
62. Claudia Kuntner, Thomas Wanek, Martin Hoffer, Daniel Dangl, Margit Hornof, Herbert Kvaternik, Oliver Langer. Radiosynthesis and assessment of ocular pharmacokinetics of ^{124}I -labeled chitosan in rabbits using small-animal positron emission tomography. *Mol Imaging Biol* 13(2): 222-226 (2011) IF 2022 3.1
63. Claudia C Wagner, Marie Simpson, Markus Zeitlinger, Martin Bauer, Rudolf Karch, Aiman Abraham, Thomas Feurstein, Matthias Schütz, Kurt Kletter, Markus Müller, Graham Lappin, Oliver Langer. A combined accelerator mass spectrometry-positron emission tomography human microdose study with ^{14}C - and ^{11}C -labelled verapamil. *Clin Pharmacokin* 50(2): 111-20 (2011) IF 2022 4.5
64. Florian Bauer, Claudia Kuntner, Jens P. Bankstahl, Thomas Wanek, Marion Bankstahl, Johann Stanek, Severin Mairinger, Bernd Dörner, Wolfgang Löscher, Markus Müller, Thomas Erker, Oliver Langer. Synthesis and in vivo evaluation of [^{11}C]tariquidar, a PET radiotracer based on a third-generation P-gp inhibitor. *Bioorg Med Chem* 18(15):5489-5497 (2010) IF 2022 3.5
65. Severin Mairinger, Oliver Langer*, Claudia Kuntner, Thomas Wanek, Jens Bankstahl, Marion Bankstahl, Johann Stanek, Bernd Dörner, Florian Bauer, Christoph Baumgartner, Wolfgang Löscher, Thomas Erker, Markus Müller.

Synthesis and in vivo evaluation of the putative breast cancer resistance protein inhibitor [¹¹C]methyl 4-((4-(2-(6,7-dimethoxy-1,2,3,4-tetrahydroisoquinolin-2-yl)ethyl)phenyl)amino-carbonyl)-2-(quinoline-2-carbonylamino) benzoate. *Nucl Med Biol* 37 (5):637-644 (2010) IF 2022 3.1

66. Martin Bauer, Rudolf Karch, Friederike Neumann, Claudia C Wagner, Kurt Kletter, Markus Müller, Wolfgang Löscher, Markus Zeitlinger, Oliver Langer*. Assessment of regional differences in tariquidar-induced P-glycoprotein modulation at the human blood-brain barrier. *J Cereb Blood Flow Metab* 30(3):510-515 (2010) IF 2022 6.3 (Top: 26/145, Endocrinology & Metabolism)
67. Claudia Kuntner, Jens P. Bankstahl, Marion Bankstahl, Johann Stanek, Thomas Wanek, Gloria Stundner, Rudolf Karch, Rebecca Brauner, Martin Meier, Xiao-Qi Ding, Markus Müller, Wolfgang Löscher, Oliver Langer. Dose-response assessment of tariquidar and elacridar and regional quantification of P-glycoprotein inhibition at the rat blood-brain barrier using (*R*)-[¹¹C]verapamil PET. *Eur J Nucl Med Mol Imaging* 37(5):942-53 (2010) IF 2022 9.1 (Top: 87/1365, Radiology, Nuclear Medicine & Medical Imaging)
68. Claudia C Wagner, Martin Bauer, Rudolf Karch, Thomas Feurstein, Stephan Kopp, Peter Chiba, Kurt Kletter, Wolfgang Löscher, Markus Müller, Markus Zeitlinger, Oliver Langer*. A pilot study to assess the efficacy of tariquidar to inhibit P-glycoprotein at the human blood-brain barrier with (*R*)-¹¹C-verapamil and PET. *J Nucl Med* 50(12):1954-61 (2009) IF 2022 9.3 (Top: 6/135, Radiology, Nuclear Medicine & Medical Imaging)
69. Martin Bauer, Rudolf Karch, Friederike Neumann, Aiman Abraham, Claudia C Wagner, Kurt Kletter, Markus Müller, Markus Zeitlinger, Oliver Langer*. Age dependency of cerebral P-gp function measured with (*R*)-[¹¹C]verapamil and PET. *Eur J Clin Pharmacol* 65(9):941-6 (2009) IF 2022 2.9
70. Claudia Kuntner, Adam L. Kesner, Martin Bauer, Robert Kremslehner, Thomas Wanek, Markus Mandler, Rudolf Karch, Johann Stanek, Tanja Wolf, Markus Müller, Oliver Langer. Limitations of small-animal PET imaging with [¹⁸F]FDDNP and [¹⁸F]FDG for quantitative studies in a transgenic mouse model of Alzheimer's disease. *Mol Imaging Biol* 11(4):236-40 (2009) IF 2022 3.1
71. Bernd Dörner, Claudia Kuntner, Jens P. Bankstahl, Marion Bankstahl, Johann Stanek, Thomas Wanek, Gloria Stundner, Severin Mairinger, Wolfgang Löscher, Markus Müller, Oliver Langer*, Thomas Erker. Synthesis and small-animal positron emission tomography evaluation of [¹¹C]-elacridar as a radiotracer to assess the distribution of P-glycoprotein at the blood-brain barrier. *J Med Chem* 52(19):6073-82 (2009) IF 2022 7.3 (Top: 4/60, Chemistry, Medicinal)
72. Daniel Cejka, Claudia Kuntner, Matthias Preusser, Monika Fritzer-Szekeres, Barbara Fueger, Sabine Strommer, Johannes Werzowa, Thorsten Fueerer, Thomas Wanek, Maria Zsebedics, Markus Müller, Oliver Langer*, Volker Wacheck. FDG uptake is a surrogate marker for defining the optimal biological dose of the mTOR inhibitor everolimus in vivo. *Br J Cancer* 100(11):1739-45 (2009) IF 2022 8.8 (Top: 36/241, Oncology)
73. Jens P. Bankstahl, Claudia Kuntner, Aiman Abraham, Rudolf Karch, Johann Stanek, Thomas Wanek, Wolfgang Wadsak, Kurt Kletter, Markus Müller, Wolfgang Löscher, Oliver Langer*. Tariquidar-induced P-glycoprotein inhibition at the rat blood-brain barrier studied with (*R*)-[¹¹C]verapamil and PET. *J Nucl Med* 49(8):1328-35 (2008) IF 2022 9.3 (Top: 6/135, Radiology, Nuclear Medicine & Medical Imaging)
74. Aiman Abraham, Gert Luurtsema, Martin Bauer, Rudolf Karch, Ekaterina Patarai, Christian Joukhadar, Kurt Kletter, Adriaan A. Lammertsma, Christoph Baumgartner, Markus Müller, Oliver Langer*. Peripheral metabolism of (*R*)-[¹¹C]verapamil in epilepsy patients. *Eur J Nucl Med Mol Imaging* 35(1):116-123 (2008) IF 2022 9.1 (Top: 7/135, Radiology, Nuclear Medicine & Medical Imaging)
75. Oliver Langer*, Martin Bauer, Alexander Hammers, Rudolf Karch, Ekaterina Patarai, Matthias J. Koepp, Aiman Abraham, Gert Luurtsema, Martin Brunner, Raute Sunder-Plassmann, Friedrich Zimprich, Christian Joukhadar, Stephan Gentzsch, Robert Dudczak, Kurt Kletter, Markus Müller, Christoph Baumgartner. Pharmacoresistance in epilepsy: a pilot PET study with the P-glycoprotein substrate *R*-[¹¹C]verapamil. *Epilepsia* 48(9):1774-84 (2007) IF 2022 5.6 (Top: 35/212, Clinical Neurology)

76. Aiman Abraham, Peter Angelberger, Kurt Kletter, Markus Müller, Christian Joukhadar, Thomas Erker, Oliver Langer*. Synthesis of fluorine-18-labelled 5- and 6-fluoro-2-pyridinamine. *J Labelled Compd Rad* 49:345-356 (2006) IF 2022 1.8
77. Martin Bauer, Oliver Langer*, Peter Dal-Bianco, Rudolf Karch, Martin Brunner, Aiman Abraham, Rupert Lanzenberger, Andrea Hofmann, Christian Joukhadar, Paolo Carminati, Orlando Ghirardi, Paola Piovesan, Gianluigi Forloni, Mario E. Corrado, Nadège Lods, Robert Dudczak, Eduard Auff, Kurt Kletter, Markus Müller. A PET microdosing study with a potential anti-amyloid drug in healthy volunteers and Alzheimer's disease patients. *Clin Pharmacol Ther* 80(3): 216-227 (2006) IF 2022 6.7 (Top: 29/277, Pharmacology & Pharmacy)
78. Oliver Langer*, Rudolf Karch, Ulrich Müller, Georg Dobrozemsky, Aiman Abraham, Markus Zeitlinger, Edith Lackner, Christian Joukhadar, Robert Dudczak, Kurt Kletter, Markus Müller, Martin Brunner. Combined PET and microdialysis for in vivo assessment of intracellular drug pharmacokinetics in humans. *J Nucl Med* 46: 1835-1841 (2005) IF 2022 9.3 (Top: 6/135, Radiology, Nuclear Medicine & Medical Imaging)
79. Oliver Langer*, Andreas Krcal, Alexander Schmid, Aiman Abraham, Patrizia Minetti, Diana Celona, Dirk Roeda, Frédéric Dollé, Kurt Kletter, Markus Müller. Synthesis of 1,1-[¹¹C]-methylene-di-(2-naphthol) ([¹¹C]ST1859) for PET studies in humans. *J Labelled Compd Rad* 48:577-587 (2005) IF 2022 1.8
80. Oliver Langer*, Martin Brunner, Markus Zeitlinger, Sophie Ziegler, Ulrich Müller, Georg Dobrozemsky, Edith Lackner, Christian Joukhadar, Markus Mitterhauser, Wolfgang Wadsak, Erich Minar, Robert Dudczak, Kurt Kletter, Markus Müller. In vitro and in vivo evaluation of [¹⁸F]ciprofloxacin for the imaging of bacterial infections with PET. *Eur J Nucl Med Mol Imaging* 32(2): 143-150 (2005) IF 2022 9.1 (Top: 7/135, Radiology, Nuclear Medicine & Medical Imaging); Editorial Comment: *Eur J Nucl Med Mol Imaging* 32(2): 151-152 (2005).
81. Oliver Langer*, Markus Mitterhauser, Wolfgang Wadsak, Martin Brunner, Ulrich Müller, Kurt Kletter, Markus Müller. A general method for the fluorine-18 labelling of fluoroquinolone antibiotics. *J Labelled Compd Rad* 46:715-727 (2003) IF 2022 1.8
82. Oliver Langer*, Markus Mitterhauser, Martin Brunner, Markus Zeitlinger, Wolfgang Wadsak, Bernhard X. Mayer, Kurt Kletter, Markus Müller. Synthesis of fluorine-18-labeled ciprofloxacin for PET studies in humans. *Nucl Med Biol* 30: 285-291 (2003) IF 2022 3.1
83. Oliver Langer*, Tobias Frongren, Johan Sandell, Frédéric Dollé, Bengt Långström, Kjell Någren, Christer Halldin. Preparation of 4-[¹¹C]methylmetaraminol, a potential PET tracer for assessment of myocardial sympathetic innervation. *J Labelled Compd Rad* 46: 55-65 (2003) IF 2022 1.8
84. Oliver Langer, Frédéric Dollé, Christer Halldin, Françoise Vaufrey, Christine Coulon, Michele Ottaviani, Michel Bottlaender, Christian Crouzel, Kjell Någren, Bernard Mazière. Synthesis of high-specific-radioactivity 4- and 6-[¹⁸F]fluorometaraminol - PET tracers for the adrenergic nervous system of the heart. *Bioorg Med Chem* 9 (3): 677-694 (2001) IF 2022 3.5
85. Oliver Langer*, Balázs Gulyás, Johan Sandell, István Laszlovszky, Béla Kiss, György Domány, Tibor Ács, Lars Farde, Christer Halldin. Radiochemical labelling of the dopamine D3 receptor ligand RGH-1756. *J Labelled Compd Rad* 43: 1069-1074 (2000) IF 2022 1.8
86. Oliver Langer*, Christer Halldin, Yuan-Hwa Chou, Carl-Gunnar Swahn, Kjell Någren, Roberto Perrone, Francesco Berardi, Marcello Leopoldo, Lars Farde. Carbon-11 PB-12, an attempt to visualize the dopamine D4 receptor in the primate brain with positron emission tomography. *Nucl Med Biol* 27 (8): 707-714 (2000) IF 2022 3.1
87. Oliver Langer, Héric Valette, Frédéric Dollé, Christer Halldin, Christian Loc'h, Chantal Fuseau, Christine Coulon, Michele Ottaviani, Michel Bottlaender, Bernard Mazière, Christian Crouzel. High specific radioactivity (1R,2S)-4-[¹⁸F]fluorometaraminol: a PET radiotracer for mapping sympathetic nerves of the heart. *Nucl Med Biol* 27: 233-238 (2000) IF 2022 3.1

88. Johan Sandell, Oliver Langer*, Peter Larsen, Frédéric Dollé, Françoise Vaufrey, Stéphane Demphel, Christian Crouzel, Christer Halldin. Improved specific radioactivity of the PET radioligand [¹¹C]FLB 457 by use of the GE Medical Systems PETtrace Mel MicroLab. *J Labelled Compd Rad* 43: 331-338 (2000) IF 2022 1.8
89. Oliver Langer*, Kjell Någren, Frédéric Dollé, Camilla Lundkvist, Johan Sandell, Carl-Gunnar Swahn, Françoise Vaufrey, Christian Crouzel, Bernard Mazière, Christer Halldin. Precursor synthesis and radiolabelling of the dopamine D2 receptor ligand [¹¹C]raclopride from [¹¹C]methyl triflate. *J Labelled Compd Rad* 42: 1183-1193 (1999) IF 2022 1.8
90. Oliver Langer, Christer Halldin, Camilla Lundkvist, Johan Sandell, Carl-Gunnar Swahn, Håkan Hall, Hans Olsson, Per Karlsson, Frédéric Dollé, Christian Loc'h, Michel Bottlaender, Bernard Bendriem, Christian Crouzel, Bernard Mazière, Lars Farde. Carbon-11 epidepride is a suitable PET radioligand for examination of extrastriatal dopamine D2 receptors. *Nucl Med Biol* 26, 509-518 (1999) IF 2022 3.1
91. Oliver Langer*, Frédéric Dollé, Christian Loc'h, Christer Halldin, Françoise Vaufrey, Christine Coulon, Christian Crouzel, Kjell Någren, Bernard Mazière. Preparation of 4- and 6-[⁷⁶Br]bromometaraminol, two potential radiotracers for the study of the myocardial norepinephrine neuronal reuptake system with PET. *J Labelled Compd Rad* 39(10), 803-816 (1997) IF 2022 1.8

Review articles:

92. Severin Mairinger, Irene Hernández Lozano, Markus Zeitlinger, Carsten Ehrhardt, Oliver Langer*. Nuclear medicine imaging methods as novel tools in the assessment of pulmonary drug disposition. *Expert Opin Drug Deliv* 19(12):1561-1575 (2022) (invited) IF 2022 6.6 (Top: 31/277, Pharmacology & Pharmacy)
93. Irene Hernández Lozano, Oliver Langer*. Use of imaging to assess the activity of hepatic transporters. *Expert Opin Drug Metab Toxicol* 16(2):149-164 (2020) (invited) IF 2022 4.3
94. Martin Bauer, Nicolas Tournier, Oliver Langer*. Imaging P-glycoprotein function at the blood-brain barrier as a determinant of the variability in response to CNS drugs. Commentary. *Clin Pharmacol Ther* 105(5): 1061-1064 (2019) (invited) IF 2022 6.7 (Top: 29/277, Pharmacology & Pharmacy)
95. Nicolas Tournier, Bruno Stieger, Oliver Langer*. Imaging techniques to study drug transporter function in vivo. *Pharmacol Ther* 189:104-122 (2018) (invited) IF 2022 13.5 (Top: 7/277, Pharmacology & Pharmacy)
96. Oliver Langer*. Use of PET imaging to evaluate transporter-mediated drug-drug interactions. *J Clin Pharmacol* 56, Supplement S7:S143-S156 (2016) (invited) IF 2022 2.9
97. Beatrix Wulkersdorfer, Thomas Wanek, Martin Bauer, Markus Zeitlinger, Markus Müller, Oliver Langer*. Using positron emission tomography to study transporter-mediated drug-drug interactions in tissues. *Clin Pharmacol Ther* 96(2):206-213 (2014) IF 2022 6.7 (Top: 29/277, Pharmacology & Pharmacy)
98. Thomas Wanek, Severin Mairinger, Oliver Langer*. Radioligands targeting P-glycoprotein and other drug efflux proteins at the blood-brain barrier. Special issue: Carbon-11 and fluorine-18 chemistry devoted to molecular probes for imaging the brain with PET. *J Labelled Compd Rad* 56(3-4):68-77 (2013) (invited) IF 2022 1.8
99. Severin Mairinger, Thomas Erker, Markus Müller, Oliver Langer*. PET and SPECT radiotracers to assess function and expression of ABC transporters in vivo. *Curr Drug Metab* 12(5):774-792 (2011) (invited) IF 2022 2.3
100. Claudia C Wagner, Oliver Langer*. Approaches using molecular imaging technology - use of PET in clinical microdose studies. *Adv Drug Deliver Rev* 63:539-546 (2011) (invited) IF 2022 16.3 (Top: 4/277, Pharmacology & Pharmacy)
101. Wolfgang Löscher, Oliver Langer. Imaging of P-glycoprotein function and expression to elucidate mechanisms of pharmacoresistance in epilepsy. *Curr Top Med Chem* 10(17):1785-91 (2010) (invited) IF 2022 3.4
102. Martin Bauer, Claudia C Wagner, Oliver Langer*. Microdosing studies in humans. The role of positron emission tomography. *Drugs in R&D* 9(2):73-81 (2008) (invited) IF 2022 3.0

103. Claudia C Wagner, Markus Müller, Graham Lappin, Oliver Langer*. Positron emission tomography for use in microdosing studies. *Curr Opin Drug Discov Devel* 11(1):104-10 (2008) (invited) IF 2012 5.121 (Top: 20/261, Pharmacology & Pharmacy)
104. Martin Brunner, Oliver Langer. Microdialysis versus other techniques for the clinical assessment of in vivo tissue drug distribution. *AAPS J* 8(2):E263-71 (2006) IF 2022 4.5
105. Oliver Langer*, Markus Müller. Methods to assess tissue-specific distribution and metabolism of drugs. *Curr Drug Metab* 5(6):463-481 (2004) (invited) IF 2022 2.3
106. Oliver Langer*, Christer Halldin. PET- and SPECT tracers for mapping the cardiac nervous system. *Eur J Nucl Med Mol Imaging* 29 (3): 416-434 (2002) IF 2022 9.1 (Top: 7/135, Radiology, Nuclear Medicine & Medical Imaging)

Letter to the editor:

107. Martin Bauer, Markus Zeitlinger, Oliver Langer. Pharmacokinetic imaging with radiolabeled molecularly targeted anticancer drugs. *J Nucl Med* 61(2): 306 (2020) IF 2022 9.3 (Top: 6/135, Radiology, Nuclear Medicine & Medical Imaging)

Co-author:

Original research articles:

108. Maria Ilyas-Feldmann, Oliver Langer, Martin Bauer, Marie-Claude Asselin, N. Harry Hendrikse, Sanjay M. Sisodiya, John S. Duncan, Wolfgang Löscher, Matthias Koepp. Tolerability of tariquidar – a third generation P-gp inhibitor as add-on medication to antiseizure medications in drug-resistant epilepsy. *Seizure: European Journal of Epilepsy* 119:44-51 (2024). IF 2022 3.0
109. Louise Breuil, Myriam El Biali, Dominique Vodovar, Solène Marie, Sylvain Auvity, Martin Bauer, Sébastien Goutal, Sebastian Rodrigo, Oliver Langer, Nicolas Tournier. Parametric imaging of P-glycoprotein function at the blood-brain barrier using $k_{E,brain}$ -maps generated from [¹¹C]metoclopramide PET data in rats, nonhuman primates and humans. *Mol Imaging Biol* 25(6):1135-1141 (2023) IF 2022 3.1
110. Sébastien Goutal, Anthony Novell, Sarah Leterrier, Louise Breuil, Erwan Selingue, Matthieu Gerstenmayer, Solène Marie, Bruno Saubaméa, Fabien Caillé, Oliver Langer, Charles Truillet, Benoît Larrat, Nicolas Tournier*. Imaging the impact of blood-brain barrier disruption 1 induced by focused ultrasound on P-glycoprotein function. *J Control Release* 361:483-492 (2023) IF 2022 10.8 (Top: 12/277, Pharmacology & Pharmacy)
111. Johannes A. Sake, Mohammed Ali Selo, Lyubomyr Burtnyak, Henriette E. Dähnhardt, Camelia Helbet, Severin Mairinger, Oliver Langer, Vincent P. Kelly, Carsten Ehrhardt. Knockout of *ABCC1* in NCI-H441 cells reveals CF to be a suboptimal substrate to study MRP1 activity in organotypic *in vitro* models. *Eur J Pharm Sci* 181:106364 (2023) IF 2022 4.6
112. Louise Breuil, Nora Ziani, Sarah Leterrier, Gaëlle Hugon, Fabien Caillé, Viviane Bouilleret, Charles Truillet, Maud Goislard, Myriam El Biali, Martin Bauer, Oliver Langer, Sébastien Goutal, Nicolas Tournier*. Impact of cytochrome induction or inhibition on the plasma and brain kinetics of [¹¹C]metoclopramide, a PET probe for P-glycoprotein function at the blood-brain barrier. *Pharmaceutics* 14(12), 2650; <https://doi.org/10.3390/pharmaceutics14122650> (2022) IF 2022 5.4 (Top: 51/277, Pharmacology & Pharmacy)
113. Solène Marie, Irene Hernández-Lozano, Marc Le Vée, Louise Breuil, Wadad Saba, Maud Goislard, Sébastien Goutal, Charles Truillet, Oliver Langer, Olivier Fardel, Nicolas Tournier. Pharmacokinetic imaging using ^{99m}Tc-mebrofenin to untangle the pattern of hepatocyte transporter disruptions induced by endotoxemia in rats. *Pharmaceutics* 5(4):392 (2022). doi: 10.3390/ph15040392 IF 2022 4.6
114. Zoe Oesterreicher, Sabine Eberl, Beatrix Wulkersdorfer, Peter Matzneller, Claudia Eder, Esther van Duijn, Wouter H. J. Vaes, Birgit Reiter, Thomas Stimpfl, Walter Jäger, Alina Nussbaumer-Proell, Daniela Marhofer, Peter Marhofer, Oliver Langer, Markus Zeitlinger*. Microdosing as a potential tool to enhance clinical development of novel antibiotics: a tissue and plasma PK feasibility study with ciprofloxacin. *Clin Pharmacokin* 61(5):697-707 (2022) IF 2022 4.5

115. Louise Breuil, Solène Marie, Sébastien Goutal, Sylvain Auvity, Charles Truillet, Wadad Saba, Oliver Langer, Fabien Caillé, Nicolas Tournier. Comparative vulnerability of PET radioligands to partial inhibition of P-glycoprotein at the blood-brain barrier: a criterion of choice? *J Cereb Blood Flow Metab* 42(1):175-185 (2022) IF 2022 6.3 (Top: 26/145, Endocrinology & Metabolism)
116. Thomas Filip, Severin Mairinger, Joerg Neddens, Michael Sauberer, Stefanie Flunkert, Johann Stanek, Thomas Wanek, Nobuyuki Okamura, Oliver Langer, Birgit Hutter-Paier, Claudia Kuntner*. Characterization of an APP/Tau rat model of Alzheimer's disease by positron emission tomography and immunofluorescent labeling. *Alzheimers Res Ther* 13(1):175 (2021). doi: 10.1186/s13195-021-00916-2 IF 2022 9.0 (Top: 21/272, Neurosciences)
117. Myriam El Biali, Rudolf Karch, Cécile Philippe, Helmuth Haslacher, Nicolas Tournier, Marcus Hacker, Markus Zeitlinger, Doreen Schmidl, Oliver Langer, Martin Bauer. ABCB1 and ABCG2 together limit the distribution of ABCB1/ABCG2 substrates to the human retina and the ABCG2 single nucleotide polymorphism Q141K (c.421C>A) may lead to increased drug exposure. *Front Pharmacol* 2021 Jun 16;12:698966. doi: 10.3389/fphar.2021.698966. eCollection 2021. IF 2022 5.6 (Top: 45/277, Pharmacology & Pharmacy)
118. Mohammed Ali Selo, Anne-Sophie Delmas, Lisa Springer, Viktoria Zoufal, Johannes A. Sake, Caoimhe G. Clerkin, Hanno Huwer, Nicole Schneider-Daum, Claus-Michael Lehr, Sabrina Nickel, Oliver Langer, Carsten Ehrhardt. Tobacco smoke and inhaled drugs alter expression and activity of multidrug resistance-associated protein-1 (MRP1) in human distal lung epithelial cells in vitro. *Front Bioeng Biotechnol* 8:1030. doi: 10.3389/fbioe.2020.01030. eCollection 2020 (2020) IF 2022 5.7
119. Solène Marie, Irene Hernández Lozano, Louise Breuil, Wadad Saba, Anthony Novell, Jean-Luc Gennisson, Oliver Langer, Charles Truillet, Nicolas Tournier. Validation of pharmacological protocols for targeted inhibition of canalicular MRP2 activity in hepatocytes using [^{99m}Tc]mefrofenin imaging in rats. *Pharmaceutics* 12(6):486 (2020); <https://doi.org/10.3390/pharmaceutics12060486> IF 2022 5.4 (Top: 51/277, Pharmacology & Pharmacy)
120. Verena Pichler, Marius Ozenil, Karsten Bamming, Chrysoula Vraka, Marcus Hacker, Oliver Langer, Wolfgang Wadsak. Pitfalls and solutions of the fully-automated radiosynthesis of [¹¹C]metoclopramide. *EJNMMI Radiopharm Chem* 4(1):31 (2019) IF 2022 4.6 (Top: 30/203, Radiology, Nuclear Medicine & Medical Imaging)
121. Gwenaëlle Le Roux, Rafika Jarray, Anne-Cécile Guyot, Serena Pavoni, Narciso Costa, Frédéric Théodoro, Ferid Nassor, Alain Pruvost, Nicolas Tournier, Yulia Kiyan, Oliver Langer, Frank Yates, Jean Philippe Deslys, Aloïse Mabondzo. Proof-of-concept study of drug brain permeability between in vivo human brain and an in vitro iPSCs-human blood-brain barrier model. *Sci Rep* 9(1):16310 (2019) IF 2022 4.6
122. Markus Krohn, Viktoria Zoufal, Severin Mairinger, Thomas Wanek, Kristin Paarmann, Thomas Brüning, Ivan Eiriz, Mirjam Brackhan, Oliver Langer, Jens Pahnke. Generation and characterization of an *Abcc1* humanized mouse model (*hABCC1^{flx/flx}*) with knockout capability. *Mol Pharmacol* 96(2):138-147 (2019) IF 2022 3.6; featured on the journal cover
123. Sonali N. Reisinger, Thomas Wanek, Oliver Langer, Daniela D. Pollak. PET imaging of the mouse brain reveals a dynamic regulation of SERT density in a chronic stress model. *Transl Psychiatry* 9(1):80 (2019) IF 2022 6.8 (Top: 29/155, Psychiatry)
124. Verena Pichler, Thomas Zenz, Cécile Philippe, Chrysoula Vraka, Neydher Berroterán-Infante, Sarah Pfaff, Lukas Nics, Marius Ozenil, Oliver Langer, Matthäus Willeit, Tatjana Traub-Weidinger, Rupert Lanzenberger, Markus Mitterhauser, Marcus Hacker, Wolfgang Wadsak. Molar activity - the keystone in ¹¹C-radiochemistry: an explorative study using the gas phase method. *Nucl Med Biol* 67:21-26 (2018) IF 2022 3.1
125. Markus Linder, Elisabeth Glitzner, Sriram Srivatsa, Latifa Bakiri, Parastoo Shahrouzi, Monika Dumanic, Philipp Novoszel, Oliver Langer, Thomas Wanek, Markus Mitterhauser, Erwin F. Wagner, Maria Sibilia. EGFR and c-Fos co-expression predict response to anti-EGFR treatment in preclinical osteosarcoma models and correlate with worse prognosis in patients. *EMBO Mol Med* 10(11). pii: e9408 (2018) IF 2022 11.1 (Top: 10/136, Medicine, Research & Experimental); featured on the journal cover

126. Dorra Amor, Solène Marie, Fabien Caillé, Martin Bauer, Oliver Langer, Sylvain Auvity, Nicolas Tournier. Impact of OATP inhibition with rifampicin on the liver distribution of erlotinib assessed with PET imaging in rats. *EJNMMI Res* 2018 Aug 16;8(1):81. doi: 10.1186/s13550-018-0434-0 (2018) IF 2022 3.2
127. Markus Krohn, Thomas Wanek, Marie-Claude Menet, Andreas Noack, Xavier Declèves, Oliver Langer, Wolfgang Löscher, Jens Pahnke. Humanization of the blood-brain barrier transporter ABCB1 in mice disrupts genomic locus - lessons from three unsuccessful approaches. *Eur J Microbiol Immunol (Bp)* 8(3):78-86 (2018) IF 2022 2.2
128. Cécile Philippe, Severin Mairinger, Verena Pichler, Johann Stanek, Lukas Nics, Markus Mitterhauser, Marcus Hacker, Thomas Wanek, Oliver Langer, Wolfgang Wadsak. Comparison of fully-automated radiosyntheses of [¹¹C]erlotinib for preclinical and clinical use starting from in target produced [¹¹C]CO₂ or [¹¹C]CH₄. *EJNMMI Radiopharm Chem* 3(1):8 (2018) IF 2022 4.6 (Top: 30/203, Radiology, Nuclear Medicine & Medical Imaging)
129. Sylvain Auvity, Fabien Caillé, Solène Marie, Catriona Wimberley, Martin Bauer, Oliver Langer, Irène Buvat, Sébastien Goutal, Nicolas Tournier. P-glycoprotein (ABCB1) inhibits the influx and increases the efflux of ¹¹C-metoclopramide across the blood-brain barrier: a PET study on non-human primates. *J Nucl Med* 59:1609-15 (2018) IF 2022 9.3 (Top: 6/135, Radiology, Nuclear Medicine & Medical Imaging)
130. Sébastien Goutal, Oliver Langer, Sylvain Auvity, Christine Coulon, Fabien Caillé, Salvatore Cisternino, Xavier Declèves, Nicolas Tournier. Intravenous infusion for the controlled exposure to the dual ABCB1 and ABCG2 inhibitor elacridar in nonhuman primates. *Drug Deliv Transl Res* 8(3):536-542 (2018) IF 2022 5.4
131. Martin Lyngby Lassen, Otto Muzik, Thomas Beyer, Marcus Hacker, Claes Nøhr Ladefoged, Jacobo Cal-Gonzalez, Wolfgang Wadsak, Ivo Rausch, Oliver Langer, Martin Bauer. Reproducibility of a quantitative brain PET protocol in PET-only and combined PET/MR imaging. *Front Neurosci* Jul 17;11:396 (2017) IF 2022 4.3
132. Johannes Steffen, Markus Krohn, Christina Schwitlick, Thomas Brüning, Kristin Paarmann, Claus U. Pietrzik, Henrik Biverstål, Baiba Jansone, Oliver Langer, Jens Pahnke. Expression of endogenous mouse APP modulates β -amyloid deposition in hAPP-transgenic mice. *Acta Neuropathol Commun* 5(1):49 (2017) IF 2022 7.1 (Top: 34/272, Neurosciences)
133. Bettina Wingelhofer, Katharina Kreis, Severin Mairinger, Johann Stanek, Thomas Wanek, Oliver Langer, Claudia Kuntner. Preloading with L-BPA, L-tyrosine and L-DOPA enhances the uptake of [¹⁸F]FBPA in human and mouse tumour cell lines. *Appl Radiat Isotop* 118:67-72. (2016) IF 2022 1.6
134. Thomas Wanek, Katharina Kreis, Petra Křížková, Anna Schweifer, Christoph Denk, Johann Stanek, Severin Mairinger, Thomas Filip, Michael Sauberer, Patricia Edelhofer, Alexander Traxl, Viktoria E. Muchitsch, Kurt Mereiter Friedrich Hammerschmidt, Carol E. Cass, Vijaya L. Damaraju, Oliver Langer, Claudia Kuntner. Synthesis and preclinical characterization of 1-(β -D-6'-deoxy-6'-[¹⁸F]fluoroalofuranosyl)-2-nitroimidazole (β -6'-[¹⁸F]FAZAL) as a positron emission tomography radiotracer to assess tumor hypoxia. *Bioorg Med Chem* 24(21):5326-5339 (2016) IF 2022 3.5
135. Catrin Gruenewald, Michael Sauberer, Thomas Filip, Thomas Wanek, Johann Stanek, Severin Mairinger, Sofia Rollet, P Kudejova, Oliver Langer, Christian Schütz, Matthias Blaickner, Claudia Kuntner. On the applicability of [¹⁸F]FBPA to predict L-BPA concentration after amino acid preloading in HuH-7 liver tumor model and the implication for liver BNCT. *Nucl Med Biol* 44:83-89 (2016) IF 2022 3.1
136. Shannon Dallas, Laurent Salphati, David Gomez-Zepeda, Thomas Wanek, Liangfu Chen, Xiaoyan Chu, Jeevan Kunta, Mario Mezler, Marie-Claude Menet, Stephanie Chasseigneaux, Xavier Declèves, Oliver Langer, Clara Andonian, Karen DiLoreto, Carolin Hoft, Loic Laplanche, Jodie Pang, Tony Pereira, Esaie Pierre, Damir Simic, Anja Rode, Jocelyn Yabut, Xiaolin Zhang, and Nico Scheer. Generation and validation of a humanized mouse model for studying the in vivo relevance of breast cancer resistance protein in tissue distribution and pharmacokinetics of drug candidates. *Mol Pharmacol* 89:492-504 (2016) IF 2022 3.6
137. Kerstin Sander, Eva Galante, Thibault Gendron, Elena Yiannaki, Niral Patel, Tammy L. Kalber, Adam Badar, Matthew Robson, Sean P. Johnson, Florian Bauer, Severin Mairinger, Johann Stanek, Thomas Wanek, Claudia Kuntner, Tim Kottke, Lilia Weizel, David Dickens, Kjell Erlandsson, Brian F. Hutton, Mark F. Lythgoe, Holger Stark, Oliver Langer, Matthias Koepp, Erik Årstad. Development of fluorine-18 labeled metabolically activated tracers

- for imaging of drug efflux transporters with PET. *J Med Chem* 58(15):6058-80 (2015) IF 2022 7.3 (Top: 4/60, Chemistry, Medicinal)
138. Daniela Häusler, Claudia Kuntner, Lukas Nics, Markus Savli, Markus Zeilinger, Thomas Wanek, Panagiotis Karagiannis, Rupert Lanzenberger, Oliver Langer, Karem Shanab, Helmut Spreitzer, Wolfgang Wadsak, Marcus Hacker, Markus Mitterhauser. [¹⁸F]FE@SUPPY - a suitable PET-tracer for the Adenosine A3 Receptor? An in vivo study in rodents. *Eur J Nucl Med Mol Imaging* 42: 741-749 (2015) IF 2022 9.1 (Top: 7/135, Radiology, Nuclear Medicine & Medical Imaging)
 139. Friedrich Röhrbacher, Jens P. Bankstahl, Marion Bankstahl; Thomas Wanek, Johann Stanek, Michael Sauberer, Julia Müllauer, Thales Schroettner, Oliver Langer, Claudia Kuntner. Development and performance test of an online blood sampling system for determination of the arterial input function in rats. *EJNMMI Physics* 2(1):1 (2015) IF 2022 4.0
 140. Julia Müllauer, Ralf Willimayer, Andrew L. Goertzen, Thomas Wanek, Oliver Langer, Wolfgang Birkfellner, Claudia Kuntner. ¹⁸F, ¹¹C and ⁶⁸Ga in small animal PET imaging. Evaluation of partial volume correction methods. *Nuklearmedizin* 52(6):250-61 (2013) IF 2022 1.5
 141. Julia Müllauer, Rudolf Karch, Jens P. Bankstahl, Marion Bankstahl, Johann Stanek, Thomas Wanek, Severin Mairinger, Markus Müller, Wolfgang Löscher, Oliver Langer^a, Claudia Kuntner^a. Assessment of cerebral P-glycoprotein expression and function with PET by combined [¹¹C]inhibitor and [¹¹C]substrate scans in rats. *Nucl Med Biol* 40(6): 755-763 (2013) IF 2022 3.1 (^a shared last authorship)
 142. Maria Feldmann, Marie-Claude Asselin, Joan Liu, Shaonan Wang, Adam McMahon, José Anton-Rodriguez, Matthew Walker, Mark Symms, Gavin Brown, Rainer Hinz, Julian Matthews, Martin Bauer, Oliver Langer, Maria Thom, Terry Jones, Christian Vollmar, John S Duncan, Sanjay M Sisodiya, Matthias J Koepp. P-glycoprotein expression and function in patients with temporal lobe epilepsy: a case-control study. *Lancet Neurol* 12(8): 777-785 (2013) IF 2022 48.0 (Top: 1/212, Clinical Neurology)
 143. Jens P. Bankstahl, Marion Bankstahl, Kerstin Römermann, Thomas Wanek, Johann Stanek, Bert Windhorst, Maren Fedrowitz, Thomas Erker, Markus Müller, Wolfgang Löscher, Oliver Langer, Claudia Kuntner. Tariquidar and elacridar are dose-dependently transported by p-glycoprotein and bcrp at the blood-brain barrier: a small-animal positron emission tomography and in vitro study. *Drug Metabol Dispos* 41(4):754-762 (2013) IF 2022 3.9; featured on the journal cover
 144. Martin Bauer, Markus Zeitlinger, Denis Todorut, Michaela Böhmendorfer, Markus Müller, Oliver Langer, Walter Jäger. Pharmacokinetics of single ascending doses of the P-glycoprotein inhibitor tariquidar in healthy subjects. *Pharmacology* 91(1-2):12-19 (2013) IF 2022 3.1
 145. Julia Müllauer, Claudia Kuntner, Martin Bauer, Jens P. Bankstahl, Markus Müller, Rob A Voskuyl, Oliver Langer, Stina Syvänen. Pharmacokinetic-pharmacodynamic modeling of P-glycoprotein function at the rat and human blood-brain barrier studied with (*R*)-[¹¹C]verapamil positron emission tomography. *EJNMMI Res* 2(1):58 (2012) IF 2022 3.2
 146. Daniëlle M.E. van Assema, Mark Lubberink, Martin M. Bauer, Wiesje M. van der Flier, Robert C. Schuit, Albert D. Windhorst, Emile F.I. Comans, Nikie J. Hoetjes, Nelleke Tolboom, Oliver Langer, Markus Müller, Philip Scheltens, Adriaan A. Lammertsma, Bart N.M. van Berckel. Blood-brain barrier P-glycoprotein function in Alzheimer's disease. *Brain* 135(Pt 1):181-189 (2012) IF 2022 14.5 (Top: 5/212, Clinical Neurology)
 147. Thorsten Fuereder, Thomas Wanek, Pamina Pflegerl, Agnes Jaeger-Lansky, Doris Hoeffmayer, Sabine Strommer, Claudia Kuntner, Markus Müller, Oliver Langer, Volker Wacheck. Gastric cancer growth control by the PI3K/mTOR inhibitor BEZ235 is tumor model dependent and correlates with [¹⁸F]FLT uptake. *Clin Cancer Res* 17(16):5322-32 (2011) IF 2022 11.5 (Top: 22/241, Oncology)
 148. Jens P. Bankstahl, Marion Bankstahl, Claudia Kuntner, Johann Stanek, Thomas Wanek, Martin Meier, Xiaoqi Ding, Markus Müller, Oliver Langer, Wolfgang Löscher. A novel PET imaging protocol identifies seizure-induced regional overactivity of P-glycoprotein at the blood-brain barrier. *J Neurosci* 31(24):8803-8811 (2011) IF 2022 5.3

149. Irmgard Leitner, Johannes Nemeth, Thomas Feurstein, Aiman Abraham, H. Lagler, Thomas Erker, Oliver Langer, Markus Zeitlinger. The third generation P-glycoprotein inhibitor tariquidar may overcome bacterial multidrug resistance by increasing intracellular drug concentration. *J Antimicrob Chemother* 66(4):834-839 (2011) IF 2022 5.2 (Top: 54/362, Pharmacology & Pharmacy)
150. Martin Brunner, Oliver Langer, Raute Sunder-Plassmann, Georg Dobrozemsky, Ulrich Müller, Wolfgang Wadsak, Andreas Krcal, Rudolf Karch, Christine Mannhalter, Robert Dudczak, Kurt Kletter, Ilka Steiner, Christoph Baumgartner, Markus Müller. Influence of functional haplotypes in the drug transporter gene ABCB1 on central nervous system drug distribution in humans. *Clin Pharmacol Ther* 78:182-190 (2005) IF 2022 6.7 (Top: 29/277, Pharmacology & Pharmacy)
151. Martin Brunner, Oliver Langer, Georg Dobrozemsky, Ulrich Müller, Markus Zeitlinger, Markus Mitterhauser, Wolfgang Wadsak, Robert Dudczak, Kurt Kletter, Markus Müller. [¹⁸F]Ciprofloxacin, a new PET tracer for non-invasive assessment of ciprofloxacin tissue pharmacokinetics in humans. *Antimicrob Agents Chemother* 48(10):3850-3857 (2004) IF 2022 4.9
152. Judit Sóvágó, Lars Farde, Christer Halldin, Oliver Langer, István Laszlovszky, Béla Kiss, Balázs Gulyás. Positron emission tomographic evaluation of the putative dopamine-D3 receptor ligand, [¹¹C]RGH-1756 in the monkey brain. *Neurochem Int* 45: 609–617 (2004) IF 2022 4.2
153. Olli Eskola, Tove Grönroos, Jörgen Bergman, Merja Haaparanta, Päivi Marjamäki, Pertti Lehtikainen, Sarita Forsback, Oliver Langer, Françoise Hinnen, Frédéric Dollé, Christer Halldin, Olof Solin. A novel electrophilic synthesis and evaluation of high specific radioactivity (1R,2S)-4-[¹⁸F]fluorometaraminol, a tracer for the assessment of cardiac sympathetic nerve integrity with PET. *Nucl Med Biol* 31 (1): 103-110 (2004) IF 2022 3.1
154. Markus Mitterhauser, Wolfgang Wadsak, Leila Wabnegger, Leonhard-Key Mien, Stefan Tögel, Oliver Langer, Werner Sieghart, Helmut Viernstein, Kurt Kletter, Robert Dudczak. Biological evaluation of 2'-[¹⁸F]fluoroflumazenil ([¹⁸F]FFMZ), a potential GABA receptor ligand for PET. *Nucl Med Biol* 31(2):291-295 (2004) IF 2022 3.1
155. Markus Mitterhauser, Wolfgang Wadsak, Oliver Langer, Joern Schmaljohann, Georg Zettinig, Robert Dudczak, Helmut Viernstein, Kurt Kletter. Comparison of three different purification methods for the routine preparation of [¹¹C]metomidate. *Appl Radiat Isotop* 59:125-128 (2003) IF 2022 1.6
156. Johnny Vercouillie, Jari Tarkiainen, Christer Halldin, Patrick Emond, Sylvie Chalon, Johan Sandell, Oliver Langer, Denis Guilloleau. Precursor synthesis and radiolabelling of [¹¹C]ADAM: a potential radioligand for the serotonin transporter exploration by PET. *J Labelled Compd Rad* 44: 113-120 (2001) IF 2022 1.8
157. Eeva-Liisa. Kämäräinen, Teija Kyllönen, Anu Airaksinen, Camilla Lundkvist, Meixiang Yu, Kjell Nägren, Johan Sandell, Oliver Langer, Jouko Vepsäläinen, Jukka Hiltunen, Kim Bergstöm, Simo Lötjönen, Timo Jaakkola, Christer Halldin. Preparation of [¹⁸F]β-CFT-FP and [¹¹C]β-CFT-FP, selective radioligands for the visualisation of the dopamine transporter using positron emission tomography (PET). *J Labelled Compd Rad* 43: 1235-1244 (2000) IF 2022 1.8
158. Pedro Almeida, Maria João Ribeiro, Michel Bottlaender, Christian Loc'h, Oliver Langer, Daniel Strul, Patrick Hugonnard, Pierre Grangeat, Bernard Mazière, Bernard Bendriem. Absolute quantitation of iodine-123 epidepride kinetics using single-photon emission tomography: comparison with carbon-11 epidepride and positron emission tomography. *Eur J Nucl Med Mol Imaging* 26: 1580-1588 (1999) IF 2022 9.1 (Top: 7/135, Radiology, Nuclear Medicine & Medical Imaging)
159. Kjell Nägren, Christer Halldin, Carl-Gunnar Swahn, Karl-Olof Schoeps, Oliver Langer, Markus Mitterhauser, Ilse Zolle. Some new methods for the synthesis of cardiac neurotransmission PET radiotracers. *Nucl Med Biol* 22(8):1037-1043 (1997) IF 2022 3.1

Review articles:

160. Chrysiida Baltira, Eleonora Aronica, William F. Elmquist, Oliver Langer, Wolfgang Löscher, Jann N. Sarkaria, Pieter Wesseling, Mark C. de Gooijer, Olaf van Tellingen. The impact of ATP-Binding Cassette transporters in the diseased brain: Context matters. In press_ *Cell Rep Med* (2024) IF 2022 14.3 (Top: 17/191, Cell Biology)

161. Tal Burt, Ad Roffel, Oliver Langer, Kirsten Anderson, Joseph DiMasi. Strategic, feasibility, economic, and cultural aspects of phase 0 approaches: Is it time to change the drug development process in order to increase productivity? *CTS-Clin Transl Sci* 15(6):1355-1379 (2022). doi: 10.1111/cts.13269 IF 2022 3.9
162. Solène Marie, Irene Hernández-Lozano, Oliver Langer, Nicolas Tournier. Repurposing ^{99m}Tc-mebrofenin as a probe for molecular imaging of hepatocyte transporters. *J Nucl Med* 62(8):1043-1047 (2021) IF 2022 9.3 (Top: 6/135, Radiology, Nuclear Medicine & Medical Imaging), winner of the Alavi-Mandell Award 2022 of the SNMMI
163. Tal Burt, Graeme Young, Woojin Lee, Hiroyuki Kusuhara, Oliver Langer, Malcolm Rowland, Yuichi Sugiyama. Phase 0/microdosing approaches: time for mainstream application in drug development? *Nat Rev Drug Discov* 19(11):801-818 (2020) IF 2022 120.1 (Top: 1/277, Pharmacology & Pharmacy)
164. Chang-Tong Yang, Krishna K. Ghosh, Parasuraman Padmanabhan, Oliver Langer, Jiang Liu, Christer Halldin, Balázs Gulyás. PET-MR and SPECT-MR multimodality probes: development and challenges. *Theranostics* 8(22):6210-6232 (2018) IF 2022 12.4 (Top: 8/136, Medicine, Research & Experimental)
165. Catherine Pastor, Oliver Langer, Bernard E. Van Beers. Editorial Liver Imaging and Hepatobiliary Contrast Media. *Contrast Media Mol Imaging* Volume 2018, article ID 2487405 (2018) IF 2022 3.009 (editorial)
166. Chang-Tong Yang, Krishna K. Ghosh, Parasuraman Padmanabhan, Oliver Langer, Jiang Liu, Christer Halldin, Balázs Z. Gulyás. PET probes for imaging pancreatic islet cells. *Clin Transl Imaging* 5(6):507-523 (2017) IF 2022 2.1
167. Bruno Stieger, Jashvant D. Unadkat, Bhagwat Prasad, Oliver Langer, Hariprasad Gali. Symposium Report - Role of (drug) transporters in imaging in health and disease. *Drug Metabol Dispos* 42(12): 2007-2015 (2014) (invited) IF 2022 3.9
168. Markus Krohn, Oliver Langer, Jens Pahnke. Alzheimer's and ABC transporters - new opportunities for diagnostics and treatment. Special issue: Metabolic Disorders and Neurodegeneration. *Neurobiol Dis* 72 Pt A:54-60 (2014) (invited) IF 2022 6.1 (Top: 42/272, Neurosciences)
169. Pavitra Kannan, Victor W. Pike, Christer Halldin, Oliver Langer, Michael M. Gottesman, Robert B. Innis, Matthew D. Hall. Factors that limit PET imaging of P-glycoprotein density at the blood-brain barrier. *Mol Pharm* 10(6):2222-9 (2013) IF 2022 4.9
170. Elke Dimou, Jan Booij, Margarida Rodrigues, Helmut Prosch, Johannes Attems, Peter Knoll, Beth Zajicek, Robert Dudczak, Gerhard Mostbeck, Claudia Kuntner, Oliver Langer, Thomas Bruecke, Siroos Mirzaei. Amyloid PET and MRI in Alzheimer's Disease and Mild Cognitive Impairment. *Curr Alzheimer Res* 6(3):312-9 (2009) IF 2022 2.1
171. Graham Lappin, Claudia C Wagner, Oliver Langer, Nico van der Merbel. New ultra-sensitive detection technologies and techniques for use in microdosing studies. *Bioanalysis* 1 (2): 357-66 (2009) (invited) IF 2022 1.8
172. Ulrich Müller, Martin Brunner, Oliver Langer, Markus Müller. The barely accessible compartment. Novel clinical tools [Das schwer erreichbare Kompartiment. Neue klinische Untersuchungsmethoden]. *Chemotherapie Journal* 14(2): 31-34 (2005)
173. Christer Halldin, Balázs Gulyás, Oliver Langer, Lars Farde. Brain radioligands - state of the art and new trends. *Q J Nucl Med Mol Imaging* 45: 139-152 (2001) IF 2022 1.5

Book chapters:

174. Thomas Wanek, Alexander Traxl, Claudia Kuntner-Hannes, Oliver Langer. Investigation of transporter-mediated drug-drug interactions using PET/MRI. In: Image Fusion in Preclinical Applications. Editors: Claudia Kuntner-Hannes and York Haemisch, Springer (2019) ISBN: 978-3-030-02972-2
175. Oliver Langer. PET imaging of ABC transporters at the blood-brain barrier. In: Methods and Principles in Medicinal Chemistry – Transporters as Drug Targets. Editors: Gerhard F. Ecker, Rasmus Clausen and Harald Sitte, Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany (2016)

176. Oliver Langer. Positron emission tomography to assess transporter mediated drug-drug interactions in vivo. In: Experts only. The Transporter book. 2nd edition, March 2014. Editors: Zsuzsanna Gáborik, Kent Grindstaff and Berend Oosterhuis. Produced and Published by Solvo Biotechnology, Budaörs, Hungary (2014)
177. Oliver Langer. Complementary techniques – positron emission tomography. In: AAPS Advances in the Pharmaceutical Sciences Series -Microdialysis in Drug Development. Editor: Markus Müller, Springer-Verlag GmbH, Heidelberg, Germany (2012); ISBN 978-1-4614-4814-3
178. Martin Bauer and Oliver Langer. Tools in clinical pharmacology - imaging techniques. In: Current topics in clinical pharmacology. Editor: Markus Müller, Springer-Verlag GmbH, Heidelberg, Germany (2010); ISBN 978-3-7091-0144-5

Patents:

WO 2004/043496 A1 Fluorquinolines labelled with fluorine-18; Inventor: Oliver Langer

Invited lectures:

1. PET microdosing with radiolabeled drugs. 5th International Phase-0/Microdosing Stakeholder Meeting. October 26-27, Shanghai, China (2024)
2. Role of ABC transporters in pulmonary pharmacokinetics. 9th Pulmonary Drug Delivery, April 17-19, Dublin, Ireland (2024)
3. Translational PET imaging of P-glycoprotein activity at the blood-brain barrier in health and disease. 6th Mini-Symposium On The Blood-Brain Barrier From Basic To Clinical Research. March 19-20, Smolenice Castle, Slovakia (2024)
4. Measurement of cerebral P-gp, MRP1 and BCRP function in a beta-amyloidosis mouse model with PET. TransportDEMENTIA⁵. August 28-September 1, Tromsø, Norway (2023)
5. Role of ABC Transporters in Pulmonary Pharmacokinetics. 8th Pulmonary Drug Delivery Conference. May 31-June 2, Istanbul, Turkey (2023)
6. Use of small-animal PET imaging to assess drug disposition. International Symposium on Trends in Radiopharmaceuticals (ISTR-2023). 17-21 April, Vienna, Austria (2023)
7. PET microdosing with radiolabelled drugs. PASREL-imagerie meeting. Accélérer le développement de médicaments à l'aide de biomarqueurs d'imagerie biomédicale. October 21, Paris, France (2022)
8. Influence of ABC transporters at the lung epithelial barrier on the pulmonary disposition of inhaled drugs. Hepatocyte Transporter Network, September 18-21, Les Diablerets, Switzerland (2022)
9. PET-microdosing. 3rd International Phase-0/Microdosing Stakeholder Meeting - Safer, Accelerated, Targeted, and Human-Specific Translation in Drug Development. April 22, Fletcher Hotel, Leiden, The Netherlands (2022)
10. Role of ABC Transporters in Pulmonary Pharmacokinetics. 7th Workshop on Pulmonary Drug Delivery. April 20-22, Trinity College Dublin, Ireland (2022)
11. Use of PET imaging to assess P-glycoprotein activity at the BBB in Alzheimer's disease and epilepsy. Brain barriers in CNS diseases: novel therapeutic strategies and drug delivery approaches, April 1-3, Heidelberg, Germany (2022)
12. PET imaging to assess the impact of ABC efflux transporters at the blood-brain barrier on the brain distribution of small molecule drugs in health and disease. Research seminar Genentech, Inc. (online), November 30 (2021)
13. PET imaging to assess drug disposition. DMDG online meeting. October 18-20 (2021)
14. PET imaging of cerebral P-glycoprotein activity in healthy ageing and Alzheimer's disease. British Nuclear Medicine Society Annual Meeting 2021 (virtual), September 27-29 (2021)

15. Potential of Total-Body PET to Assess Drug Disposition. Total-Body PET2021 – Online Meeting, September 22-24 (2021)
16. Assessing the activity of ABC transporters at the lung epithelial barrier with PET imaging. Transportage 2021: hybrid, September 2-4, Greifswald, Germany (2021)
17. Use of PET imaging to assess strategies to enhance brain penetration of small molecule drugs in animals and humans. 24th North American ISSX Meeting (virtual), September 13-17 (2021)
18. PET imaging in determination of drug disposition. 6th German Pharm-Tox Summit, 87th Annual Meeting of the German Society for Experimental and Clinical Pharmacology and Toxicology (DGPT) March 1-3, virtual (2021)
19. PET imaging of P-glycoprotein activity at the blood-brain barrier. 33rd Annual European Association of Nuclear Medicine Congress (virtual), October 22-30 (2020)
20. Pharmacokinetic PET imaging in drug research. 7th FIP Pharmaceutical Sciences World Congress (PSWC2020 Virtual), October 4-6 (2020)
21. Introduction to PET microdosing and case study for AMS/PET combination. Workshop at the Korean Institute of Radiological and Medical Science (KIRAMS): The Phase 0 Concept: Reforming Clinical Development, December 2-3, Seoul, Korea (2019)
22. OATP2B1-mediated hepatic uptake of erlotinib assessed with PET imaging. Hepatocyte Transporter Network, September 1-4, Les Diablerets, Switzerland (2019)
23. PET microdosing - state of the art and future directions. First Phase-0/Microdosing Stakeholder Meeting. March 12, Washington D.C., USA (2019)
24. Use of PET to assess the impact of transporters on drug disposition. EANM Drug Development Committee - Interest Group Meeting. October 23, Vienna, Austria (2017)
25. Use of PET to study the effect of efflux transporters at the blood-brain barrier on brain distribution of drugs. 10th SFB35 Symposium, September 6-8, Vienna, Austria (2017)
26. PET imaging of transporters involved in drug disposition. British Nuclear Medicine Society Annual Spring Meeting 2017, May 20-22, Birmingham, UK (2017)
27. Using PET to study transporter mediated DDIs in tissues. The 2nd Symposium on Transporters in Drug Discovery. May 15-16, Royal Chemical Society, Burlington House, London, UK (2017)
28. Use of PET to study inhibition of efflux transporters at the blood-brain barrier to improve brain delivery of drugs. SFB35 Colloquia in Membrane Transport. November 18, Vienna, Austria (2016)
29. Use of positron emission tomography to assess the influence of ABC transporters on drug disposition *in vivo*. ABC2016 - 6th Special Meeting on ABC Proteins from Multidrug Resistance to Genetic Diseases. Hotel Grauer Bär****, March 5-11, Innsbruck, Austria (2016)
30. PET imaging of efflux transporter function at the blood-brain barrier. TransportDEMENTIA, December 9-11, Oslo, Norway (2015)
31. Use of PET to study inhibition of efflux transporters at the blood-brain barrier to improve brain delivery of drugs. Visiting lecture. The University of Manchester. Wolfson Molecular Imaging Centre. September 3, Manchester, UK (2015)
32. Imaging of efflux transporter function at the blood-brain barrier in Alzheimer's disease. Categorical Seminar "Molecular Imaging of Dementia: Beyond Amyloid PET". Society of Nuclear Medicine & Molecular Imaging 2015 Annual Meeting, June 6-10, Baltimore, MD, USA (2015)
33. Preclinical and clinical PET imaging of ABC transporters at the blood-brain barrier. Conference, Institut d'Imagerie Biomédicale, Service Hospitalier Frédéric Joliot, CEA, March 27, Orsay, France (2015)

34. Preclinical and clinical PET imaging of ABC transporters at the blood-brain barrier. Lyon Neuroscience Research Center CRNL Workshop „CNS barriers, in and out“. March 26, Lyon, France (2015)
35. Imaging of ABC transporters at the blood-brain barrier with positron emission tomography. Seventh SFB35 - Symposium 2014, September 8-10, Vienna, Austria (2014)
36. Translational PET imaging of efflux transporters at the blood-brain barrier. 2014 Gordon Research Conference "Barriers of the CNS", June 15-20, New London, NH, USA (2014)
37. Preclinical and clinical PET imaging of ABC transporters. Seminar Series University of Washington, School of Pharmacy, May 1, Seattle, WA, USA (2014)
38. PET Imaging of ABC efflux transporters at the blood-brain barrier in humans and animal models. Symposium: Role of (Drug) Transporters in Imaging in Health and Disease at Experimental Biology, April 29, San Diego, CA, USA (2014)
39. Studying transporter-mediated drug-drug interactions with PET. Solvo Meet the Experts: Transporter Conference - 2014, April 3, Budapest, Hungary (2014)
40. PET Imaging of ABC Efflux Transporters. 2nd Austrian Biomarker Symposium 2014 Early Diagnostics, April 1, Vienna, Austria (2014)
41. Imaging of ABC transporters at the blood-brain barrier with positron emission tomography. Speakers' series German Center for Neurodegenerative Diseases (DZNE), October 8, Magdeburg, Germany (2013)
42. Imaging of ABC transporters at the blood-brain barrier with positron emission tomography. Solvo Webinar, June 5 (2013) (see: <http://www.solvobiotech.com/knowledge-center/webinars>)
43. *In vivo* imaging of ABC transporters with positron emission tomography in epilepsy, Alzheimer's disease and cancer. 2013 Gordon Research Conference "Multi-Drug Efflux Systems", March 17-22, Ventura, CA, USA (2013)
44. Visualization of ABC transporters with positron emission tomography. 5th SFB35-Symposium, September 24-25, Vienna, Austria (2012)
45. In vivo measurement of ABC transporters in rodents & man with PET. Seminar, The University of Manchester, Biomedical Imaging Institute, July 26, Manchester, UK (2012)
46. Visualization of ABC Transporters with Positron Emission Tomography. Boehringer Ingelheim Pharma GmbH & Co. KG, November 18, Biberach, Germany (2011)
47. Use of positron emission tomography to study ABC transporter function and expression in vivo. Scheele Symposium 2011 - Pharmaceutical Sciences in the Era of Personalised Medicine, November 10-11, Uppsala, Sweden (2011)
48. In vivo imaging of ABC transporters with positron emission tomography. 7th BioMedical Transporters Conference "Membrane Transporters in Drug Discovery", August 7-11, Grindelwald, Switzerland (2011)
49. Visualisation of ABC Transporters using PET imaging. Pharma IQ's Clinically Relevant Drug Transporters conference, June 29-30, London, UK (2011)
50. Use of preclinical and clinical PET imaging in drug development. Vienna School of Clinical Research course "The Scientific Approach To Modern Oncology: Clinical and Translational Oncology", June 27-30, Vienna, Austria (2011)
51. Erfahrungsbericht/Zulassungsbedingungen Österreich. Vorkongress Gemeinsame Jahrestagung der Deutschen, Österreichischen und Schweizerischen Gesellschaften für Nuklearmedizin 2011 „Nuklearmedizinische Bildgebung für pharmakologische und klinische Studien“, April 13, Bregenz, Austria (2011)
52. In vivo imaging of ABC transporters with positron emission tomography. Drug Metabolism Discussion Group meeting, March 24-25, Budapest, Hungary (2011)

53. Use of PET to study ABC transporter function and expression in vivo. Digestive Diseases Research Seminar "Recent progress in hepatobiliary transport as a molecular basis for functional imaging, February 2, Vienna, Austria (2011)
54. Positron emission tomography in drug development. TranSVIR Imaging Workshop, February 1-2, Vienna, Austria (2011)
55. Use of scintigraphic imaging as a tool in drug development. 8th Summer School of the European Association for Clinical Pharmacology and Therapeutics (EACPT), September 30-October 2, Dresden, Germany (2010)
56. PET imaging of ABC transporters at the blood-brain barrier. Third Annual Symposium of SFB35 „Transmembrane Transporters in Health and Disease“, September 3-4, Vienna, Austria (2010)
57. Use of positron emission tomography in microdose studies. TNO conference: "Microdosing: tracing the tracer", June 3, Baarn, The Netherlands (2010)
58. Imaging and microdosing - how do they fit for antimicrobial agents? 20th European Congress of Clinical Microbiology and Infectious Diseases, April 10-13, Vienna, Austria (2010)
59. New approaches to imaging cerebral P-glycoprotein with PET. American Epilepsy Society 63rd annual meeting, December 4-8, Boston, USA (2009)
60. Translational neuroimaging of efflux transporter activity at the blood-brain barrier with positron emission tomography. First Annual Symposium of SFB35 „Transmembrane Transporters in Health and Disease“, September 26-27, Vienna, Austria (2008)
61. Positron emission tomography in drug development. Drug Discovery from Nature, Lecture series, University of Vienna, Faculty of Life Sciences, November 15, Vienna, Austria (2007)
62. Use of positron emission tomography (PET) to conduct microdosing studies in humans. World Pharmaceutical Congress – Microdosing & Phase 0 meeting, June 12-13, Philadelphia, USA (2007)
63. Combined microdialysis/positron emission tomography for in-vivo assessment of intracellular drug pharmacokinetics in humans. 2006 AAPS Annual Meeting, October 29-November 2, San Antonio, Texas, USA (2006)
64. PET microdosing, a powerful tool for early clinical drug development. CRO Alliance Summit 2006, October 19-20, Lugano, Switzerland (2006)