

## Curriculum Vitae & Publications

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### **Markus Zeitlinger, M.D., Assoc. Prof.**

Date of birth: 09/04/1975  
Languages: German, English

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### **Academic Career**

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28.01.2000	Graduation M.D.
Since June 2007	Section Head Clinical Pharmacokinetics/Pharmacogenetics and Imaging, Department of Clinical Pharmacology, Medical University of Vienna
11.10.2007	Diploma in Clinical Research
16.05.2008	Associate Professor of Clinical Pharmacology (Venia docendi for Clinical Pharmacology, "Habilitation")
01.08.2010	Board certification in Internal Medicine
03.06.2011	Board certification in Clinical Pharmacology
Since October 2015	Head of Department of Clinical Pharmacology, Medical University of Vienna

### **Academic Achievements**

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#### ***Publications:***

approx. 125 publications in peer reviewed journals, 5 book chapters

#### ***Contributions at scientific conferences:***

over 100 presentations, posters and chairs at national and international conferences

#### ***National and International Positions:***

May 2005 – present	Expert of the "Committee for Medicinal Products for Human Use" (CHMP)
October 2010 – present	Chair Working group PK/PD of the Paul Ehrlich Gesellschaft für Chemotherapie e.V
January 2011 – present	Member of Steering Committee VKlipha (Annual German Congress on Clinical Pharmacology)
March 2011 – present	Member of Steering Committee Society for Pharmaceutical Medicine (GPMed), since 2014 Executive Director

July 2014 – December 2015	Member of the Ethics Committee Medical University of Vienna
August 2014 – present	Member of the Scientific Drug Advisory Board of Austrian Ministry of Health
September 2016 – present	Chair Section of Clinical Pharmacology, Austrian Pharmacological Society (APHAR)
October 2016-present	Member of the Committee for Drug Prescription Requirement of the Austrian Ministry of Health

***Memberships and positions in scientific societies:***

- International Society of Anti-Infective Pharmacology (ISAP)
- Österreichische Pharmakologische Gesellschaft (Austrian Pharmacological Society, APHAR, Vize President Section Clinical Pharmacology)
- Österreichische Gesellschaft für antimikrobielle Chemotherapie (ÖGACH, Austrian Society of Antimicrobial Chemotherapy)
- Österreichische Gesellschaft für Infektionskrankheiten (ÖGI, Austrian Society of Infectious Diseases)
- Paul Ehrlich Gesellschaft für Chemotherapie e.V. (Chair working group PK/PD)
- European Society of Clinical Microbiology and Infectious Disease (ESCMID)
- ESCMID PK/PD of Anti-Infectives Study Group – EPASG
- Gesellschaft für Pharmazeutische Medizin (GPMed, Society for Pharmaceutical Medicine, Executive Director, Steering Committee)
- European Association for Clinical Pharmacology and Therapeutics (EACPT, Delegate to the council)

***Selected recent grants since 2014 (total > 3.000.000 Euro):***

2014-2018	Grant of the European IMI program, “New Drugs 4 Bad Bugs” (COMPACTE MAGNET)
2015-2016	Grand of the Austrian National Bank, Cerebral Microdialysis for Determination of Brain Penetration of Antibiotics
2015-2018	Ludwig Boltzmann Institute (LBI) for Applied Diagnostics, Clinical Workpackage Leader

***Further third party funding 2010-2014:***

> 2.000.000 (in particular Baxter, Affiris, EGIS, Alfa Wassermann, TMB, Apeptico, Nabriva)

***Reviewer for International Journals (selected from more than 30):***

- International Journal of Clinical Pharmacology and Therapeutics (Section Editor)
- Journal of Antimicrobial Chemotherapy
- Clinical Pharmacokinetics
- Critical Care Medicine
- The Journal of Clinical Pharmacology

**Teaching:**

Supervision of 8 doctoral thesis (postdoc) and 20 diploma thesis

**20 selected publications from the last 5 years (out of overall approx. 125 peer reviewed publications):**

- 1) Bauer M, Karch R, Neumann F, Wagner CC, Kletter K, Müller M, Löscher W, Zeitlinger M, Langer O. Assessment of regional differences in tariquidar induced P-glycoprotein modulation at the human blood-brain barrier. *J Cereb Blood Flow Metab.* 2010 Mar;30(3):510-5.
- 2) Latzke D, Marhofer P, Zeitlinger M, Machata A, Neumann F, Lackner E, Kettner SC. Minimal local anaesthetic volumes for sciatic nerve block: evaluation of ED99 in volunteers. *Br J Anaesth.* 2010 Feb;104(2):239-44.
- 3) Wagner CC, Simpson M, Zeitlinger M, Bauer M, Karch R, Abraham A, Feurstein T, Schütz M, Kletter K, Müller M, Lappin G, Langer O. A Combined Accelerator Mass Spectrometry-Positron Emission Tomography Human Microdose Study with <sup>14</sup>C- and <sup>11</sup>C-Labelled Verapamil. *Clin Pharmacokinet.* 2011 Feb 1;50(2):111-20.
- 4) Leitner I, Nemeth J, Feurstein T, Abraham A, Matzneller P, Lagler H, Erker T, Langer O, Zeitlinger M. The third-generation P-glycoprotein inhibitor tariquidar may overcome bacterial multidrug resistance by increasing intracellular drug concentration. *J Antimicrob Chemother.* 2011 Apr;66(4):834-9.
- 5) Zeitlinger MA, Derendorf H, Mouton JW, Cars O, Craig WA, Andes D, Theuretzbacher U. Protein binding - do we ever learn? *Antimicrob Agents Chemother.* 2011 Jul;55(7):3067-74.
- 6) Bauer M, Zeitlinger M, Karch R, Matzneller P, Stanek J, Jäger W, Böhmendorfer M, Wadsak W, Mitterhauser M, Bankstahl JP, Löscher W, Koepf M, Kuntner C, Müller M, Langer O. Pgp-Mediated Interaction Between (R)-[<sup>11</sup>C]Verapamil and Tariquidar at the Human Blood-Brain Barrier: A Comparison With Rat Data. *Clin Pharmacol Ther.* 2012 Feb;91(2):227-33.
- 7) Burian B, Zeitlinger M, Donath O, Reznicek G, Sauermann R. Penetration of doripenem into skeletal muscle and subcutaneous adipose tissue in healthy volunteers. *Antimicrob Agents Chemother.* 2012 Jan;56(1):532-5.
- 8) Jäger U, Fridrik M, Zeitlinger M, Heintel D, Hopfinger G, Burgstaller S, Mannhalter C, Oberaigner W, Porpaczy E, Skrabs C, Einberger C, Drach J, Raderer M, Gaiger A, Putman M, Greil R. Rituximab serum concentrations during immuno-chemotherapy of follicular lymphoma correlate with patient gender, bone marrow infiltration and clinical response. *Haematologica.* 2012 Apr 17.
- 9) Sauermann R, Burian B, Burian A, Jäger W, Höferl M, Stella A, Theurer S, Riedl M, Zeitlinger M. Tissue pharmacokinetics of ertapenem at steady-state in diabetic patients with leg infections. *J Antimicrob Chemother.* 2013 Apr;68(4):895-9.
- 10) Matzneller P, Krasniqi S, Kinzig M, Sörgel F, Hüttner S, Lackner E, Müller M, Zeitlinger M. Blood, tissue and intracellular concentrations of Azithromycin and after end of therapy. *Antimicrob Agents Chemother.* 2013 Apr;57(4):1736-42.

- 11) Marhofer D, Marhofer P, Kettner SC, Fleischmann E, Prayer D, Scherthaner M, Lackner E, Willschke H, Schwetz P, Zeitlinger M. Magnetic Resonance Imaging Analysis of the Spread of Local Anesthetic Solution after Ultrasound-guided Lateral Thoracic Paravertebral Blockade: A Volunteer Study. *Anesthesiology*. 2013 May;118(5):1106-12.
- 12) Wressnigg N, Pöllabauer EM, Aichinger G, Portsmouth D, Löw-Baselli A, Fritsch S, Livey I, Crowe BA, Schwendinger M, Brühl P, Pilz A, Dvorak T, Singer J, Firth C, Luft B, Schmitt B, Zeitlinger M, Müller M, Kollaritsch H, Paulke-Korinek M, Esen M, Kremsner PG, Ehrlich HJ, Barrett PN. Safety and immunogenicity of a novel multivalent OspA vaccine against Lyme borreliosis in healthy adults: a double-blind, randomised, dose-escalation phase 1/2 trial. *Lancet Infect Dis*. 2013 Aug;13(8):680-9.
- 13) Bauer M, Karch R, Zeitlinger M, Stanek J, Philippe C, Wadsak W, Mitterhauser M, Jäger W, Haslacher H, Müller M, Langer O. Interaction of 11C-Tariquidar and 11C-Elacridar with P-Glycoprotein and Breast Cancer Resistance Protein at the Human Blood-Brain Barrier. *J Nucl Med*. 2013 Aug;54(8):1181-7.
- 14) Wulkersdorfer B, Wanek T, Bauer M, Zeitlinger M, Müller M, Langer O. Using Positron Emission Tomography to Study Transporter-Mediated Drug-Drug Interactions in Tissues. *Clin Pharmacol Ther*. 2014 Aug;96(2):206-13.
- 15) Zheng S, Matzneller P, Zeitlinger M, Schmidt S. Development of a population pharmacokinetic model characterizing the tissue distribution of azithromycin in healthy subjects. *Antimicrob Agents Chemother*. 2014 Nov;58(11):6675-84.
- 16) Bauer M, Karch R, Zeitlinger M, Liu J, Koepp MJ, Asselin MC, Sisodiya SM, Hainfellner JA, Wadsak W, Mitterhauser M, Müller M, Patariaia E, Langer O. In vivo P-glycoprotein function before and after epilepsy surgery. *Neurology*. 2014 Oct 7;83(15):1326-31.
- 17) Bauer M, Karch R, Zeitlinger M, Philippe C, Römermann K, Stanek J, Maier-Salamon A, Wadsak W, Jäger W, Hacker M, Müller M, Langer O. Approaching complete inhibition of P-glycoprotein at the human blood-brain barrier: an (R)-[(11)C]verapamil PET study. *J Cereb Blood Flow Metab*. 2015 May;35(5):743-6.
- 18) Hosmann A, Schober A, Gruber A, Sterz F, Testori C, Warenits A, Weihs W, Högler S, Scherer T, Janata A, Laggner A, Zeitlinger M. Cerebral and Peripheral Metabolism to Predict Successful Reperfusion After Cardiac Arrest in Rats: A Microdialysis Study. *Neurocrit Care*. *Neurocrit Care*. 2016 Apr;24(2):283-93.
- 19) Zeitlinger M, Schwameis R, Burian A, Burian B, Matzneller P, Müller M, Wicha WW, Strickmann DB, Prince W. Simultaneous assessment of the pharmacokinetics of a pleuromutilin, lefamulin, in plasma, soft tissues and pulmonary epithelial lining fluid. *J Antimicrob Chemother*. 2016 Apr;71(4):1022-6.
- 20) Matzneller P, Lackner E, Lagler H, Wulkersdorfer B, Österreicher Z, Zeitlinger M. Single- and Repeated-Dose Pharmacokinetics of Ceftaroline in Plasma and Soft Tissues of Healthy Volunteers for Two Different Dosing Regimens of Ceftaroline Fosamil. *Antimicrob Agents Chemother*. 2016 May 23;60(6):3617-25.