

## Markus Zeitlinger

M.D., Assoc. Prof. Priv.Do.

Date of birth: 09/04/1975

Languages: German, English

Married, two children

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## Biosketch

Markus Zeitlinger studied medicine at the Medical University of Vienna and graduated in 2000. He completed his training as specialist in Internal Medicine and Clinical Pharmacology and advanced to his main current position as Head of the Department of Clinical Pharmacology. In 2007 he received his post-graduate diploma in Clinical Research. Beside clinical trial design his scientific interests cover antimicrobial agents with focus on early phases of clinical research and pharmacokinetics/pharmacodynamics (PK/PD). He has published over 260 peer reviewed publications and book chapters in particular in the areas of antimicrobial agents, vaccines and imaging and is ad hoc reviewer of over 30 journals. As scientific expert to the European Medicines Agency (EMA) he was actively involved in more than 400 scientific advice procedures given by the agency, including 1/3 of all rapid scientific advice procedures during the Covid-19 pandemic. Furthermore he holds key positions in several national and international scientific societies as well as in a number of national and six European research consortia. International functions include e.g. chairing of the PK/PD working group of the European Society of Clinical Microbiology and Infectious Diseases (ESCMID) while national functions include memberships in the Safety Board of the National Vaccine Advisory Committee and the Austrian National Health Board. He is also member of the Senate of the Medical University of Vienna.

## Academic Career

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	Post Graduate 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
Since October 2022	Regular Member of the Senate of the Medical University of Vienna

## Academic Achievements

Publications: 260 publications in peer reviewed journals, 6 book chapters ([Appendix A](#)).

Contributions at scientific conferences: more than 350 presentations, posters and chairs at national and international conferences, out of these 90 invited lectures.

### National and International Positions:

May 2005 – present	Expert of the “Committee for Medicinal Products for Human Use” (CHMP)
March 2011 – present	Member of Steering Committee Society for Pharmaceutical Medicine (GPMed), since 2017 Vicepresident
August 2014 – present	Member of the Scientific Drug Advisory Board of Austrian Ministry of Health
October 2016-present	Member of the Committee for Drug Prescription Requirement of the Austrian Ministry of Health
December 2016-present	Member of the Steering Committee International Society of Anti-Infective Pharmacology (ISAP)
April 2018-present	Chair ESCMID PK/PD of Anti-Infectives Study Group (EPASG)
September 2016-present	Ludwig Boltzmann Institute (LBI) for Applied Diagnostics, Clinical Workpackage Leader
Juli 2020-present	Director of Clinical Research “TIPAT” EU-Project
January 2020-present	Lay judge of national administration court (Bundesverwaltungsgericht)
June 2020-present	Associate Member of the Executive Committee European Association for Clinical Pharmacology and Therapeutics (EACPT)
January 2021-present	National coordinator of “VACCELERATE” EU-Project
January 2021-present	Group Leader Quantitative Clinical Imaging (QCI) Node, Medical University of Vienna
March 2021-present	Member of the Safety Board of the National Vaccine Advisory Committee
April 2021-present	Member of the Scientific Advisory Board of the “Wiener Gesundheitsverbund”
November 2021-present	Advisor to the Austrian National Health Board (“Oberster Sanitätsrat”)
January 2021-present	Executive Board member of the Comprehensive Center for Infection Medicine of Medical University of Vienna
since 2005	numerous involvements in organizational and scientific committees of international and national symposia and congresses

### Past positions:

2007 – 2013	Section Editor International Journal of Clinical Pharmacology and Therapeutics
2011 – 2018	Member of Steering Committee VKlipha (Annual German Congress on Clinical Pharmacology)

2010 – 2018	Chair Working group PK/PD of the Paul Ehrlich Gesellschaft für Chemotherapie e.V
2014 – 2015	Member of the Ethics Committee Medical University of Vienna
2016 – 2020	Chair Section of Clinical Pharmacology, Austrian Pharmacological Society (APHAR)
2017-2021	Member of the Executive Committee European Association for Clinical Pharmacology and Therapeutics (EACPT)
2017-2021	Board member Austrian Society of Internal Medicine (ÖGIM)
2016-2022	Council Member of the Federation of European Pharmacological Societies (EPHAR)

#### Memberships in scientific societies:

International Society of Anti-Infective Pharmacology (ISAP)  
 Österreichische Pharmakologische Gesellschaft (Austrian Pharmacological Society, APHAR)  
 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. (PEG)  
 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)  
 European Association for Clinical Pharmacology and Therapeutics (EACPT)  
 Federation of European Pharmacological Societies (EPHAR)  
 Österreichische Gesellschaft für Innere Medizin (ÖGIM, Austrian Society of Internal Medicine)  
 Alumni Club Medical University of Vienna  
 American Society for Clinical Pharmacology and Therapeutics (ASCPT)  
 Verein zur Förderung von Wissenschaft und Forschung, General Hospital Vienna (VFWF)  
 Österreichische Plattform für Personalisierte Medizin (ÖPPM)

#### Participation in Task Forces:

2017-2022	National task force for implementation of the Clinical Trial Regulation in Austria (CTR)
2017-present	Task force of the Medical University of Vienna for Translational Medicine and Therapeutics (CTMT), Medical University of Vienna Main responsible for planning of the Phase I/II Unit of the CTMT
2019-present	Task force of the Medical University of Vienna for the Centre of Technology Transfer
2020-present	Task Force Ignaz-Semmelweis Centre for Infection Medicine

#### Peer reviewed grants since 2012 (total > 6.500.000 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  
 2017-2018, KLIF/FWF, Validation and Optimization of PK/PD Development Pathways of Antibiotics  
 2019-2023, H2020-MSCA-ITN-2019, Marie S. Curie-Actions –Training Networks for “Training towards Personalized Antibiotic Treatment” (TIPAT)

2019-2024, Grant of the European IMI2 JU AMR Accelerator program: H2020-JTI-IMI2-2018-16-01 (RespiriTB)  
2019-2024, Grant of the European IMI2 JU AMR Accelerator program: H2020-JTI-IMI2-2018-16-02 (RespiriNTM)  
2019-2021, Grant of the European IMI2 JU AMR Accelerator program: H2020-JTI-IMI2-2018-16-04 (AB-DiRecT)  
2019-2024, Grant of the European IMI2 JU AMR Accelerator program: H2020-JTI-IMI2-2018-16-07 (GNA-NOW)  
2021, VACCELERATE Grant of HORIZON 2020 – The framework program for research and development

Further third party funding since 2012:

Total > 4.500.000 (e.g. Affiris, Pfizer, Alfa Wassermann, Nabriva, Gebro, Novartis, GSK, Shionogi, Roche, Apeptico, Scarletred, APEIRON Biologics)

Editorial positions Scientific journals:

November 2017-present	Editorial Board “Pharmainformation”
January 2019-present	Managing Editor European Journal of Clinical Pharmacology
September 2019-present	Editorial Board Clinical Pharmacokinetics
September 2019-present	Scientific Committee of Clinical Microbiology and Infection
April 2020 - present	Editorial Board “Microorganisms”
January 2021 – present	Scientific Board “Spectrum Oncology”
January 2022 – present	Associate Editor “Frontiers in Antibiotics”

Reviewer for International Journals (alphabetical order):

Acta Ophthalmologica  
Advanced Drug Delivery Reviews  
African Journal of Microbiology Research  
Annals of Clinical Microbiology and Antimicrobials  
Annals of the Rheumatic Diseases  
Antibiotics  
Antimicrobial Agents and Chemotherapy  
Basic & Clinical Pharmacology & Toxicology  
British Journal of Clinical Pharmacology  
Chemotherapie Journal  
Clinical Infectious Diseases  
Clinical Microbiology and Infection  
Clinical Pharmacokinetics  
Clinical Therapeutics  
Critical Care Medicine  
Drugs  
European Journal of Clinical Investigation  
European Journal of Clinical Pharmacology  
European Journal of Pharmaceutical Sciences  
Frontiers in Pharmacology  
Frontiers Pharmacology  
Generics and Biosimilars Initiative Journal  
Infection  
International Journal of Antimicrobial Agents  
International Journal of Clinical Pharmacology and Therapeutics

International Journal of Clinical Practice  
Journal of Antimicrobial Chemotherapy  
Journal of Basic Microbiology  
Journal of Pharmacology and Experimental Therapeutics  
Lancet Infectious Diseases  
Ophthalmic Research  
Peritoneal Dialysis International  
Pharmaceutics  
Planta Medica  
PLoS Computational Biology  
Regulatory Toxicology and Pharmacology  
Skin Pharmacology and Physiology  
The Journal of Clinical Pharmacology  
Thrombosis and Haemostasis  
Tuberculosis  
Wiener Klinische Wochenschrift

Reviewer for national and international societies and funding agencies

Since 2017 Reviewer ESCMID Program Committee  
Since 2020 Reviewer Bürgermeister Fonds Wien  
Since 2021 Reviewer BMBF funding initiative for clinical trials  
Since 2022 Reviewer for Austrian Ministry of Health "Sachverständiger in  
Impfschadensfällen"

Lifetime award:

2012 Heribert-Konzett-Award of Austrian Society of Clinical Pharmacology (APHAR)

Teaching:

Involvement in over 120 University lectures and courses  
Supervision of 14 doctoral thesis (postdoc) and 42 diploma or master thesis  
since 11/2009 Teacher at the Master of Public health, MUW

Clinical study experience:

since 2001 Conducting over 150 clinical studies including first in men studies as well as  
all phases of clinical drug development  
11/2021 last GCP training and test

Data safety Monitoring Board membership:

Since 2018: Evaluation of the safety and efficacy of dihydroartemisinin-piperaquine for  
intermittent preventive treatment of malaria in HIV-infected pregnant women  
Since 2020: Independent Scientific and Ethics Advisory Board (ISEAB) of EU-RESPONSE  
Since 2020: Member/chair of DSMB of 3 different "first in man" studies



29.9.2022

## Publication List:

- 1) Brunner M, Stabeta H, Moller JG, Schrolnberger C, Erovic B, Hollenstein U, **Zeitlinger M**, Eichler HG, Muller M. Target site concentrations of ciprofloxacin after single intravenous and oral doses. *Antimicrob Agents Chemother.* 2002 Dec;46(12):3724-30.
- 2) Joukhadar C, Klein N, Dittrich P, **Zeitlinger M**, Geppert A, Skhirtladze K, Frossard M, Heinz G, Muller M. Target site penetration of fosfomycin in critically ill patients. *J Antimicrob Chemother.* 2003 May;51(5):1247-52.
- 3) Langer O, Mitterhauser M, Brunner M, **Zeitlinger M**, Wadsak W, Mayer BX, Kletter K, Muller M. Synthesis of fluorine-18-labeled ciprofloxacin for PET studies in humans. *Nucl Med Biol.* 2003 Apr;30(3):285-91.
- 4) **Zeitlinger M**, Marsik C, Georgopoulos A, Muller M, Heinz G, Joukhadar C. Target site bacterial killing of cefpirome and fosfomycin in critically ill patients. *Int J Antimicrob Agents.* 2003 Jun;21(6):562-7.
- 5) **Zeitlinger M**, Muller M. Clinico-pharmacologic explanation models of cerivastatin associated rhabdomyolysis. *Wien Med Wochenschr.* 2003;153(11-12):250-4.
- 6) **Zeitlinger M**, Dehghanyar P, Mayer BX, Schenk BS, Neckel U, Heinz G, Georgopoulos A, Muller M, Joukhadar C. Relevance of soft-tissue penetration by levofloxacin for target site bacterial killing in patients with sepsis. *Antimicrob Agents Chemother.* 2003 Nov;47(11):3548-53.
- 7) Sauermann R, **Zeitlinger M**, Erovic BM, Marsik C, Georgopoulos A, Muller M, Brunner M, Joukhadar C. Pharmacodynamics of piperacillin in severely ill patients evaluated by using a PK/PD model. *Int J Antimicrob Agents.* 2003 Dec;22(6):574-8.
- 8) Traunmuller F, **Zeitlinger M**, Stoiser B, Lagler H, Abdel Salam HA, Presterl E, Graninger W. Circulating tuberculostearic acid in tuberculosis patients. *Scand J Infect Dis.* 2003;35(11-12):790-3.
- 9) Pfausler B, Spiss H, Dittrich P, **Zeitlinger M**, Schmutzhard E, Joukhadar C. Concentrations of fosfomycin in the cerebrospinal fluid of neurointensive care patients with ventriculostomy-associated ventriculitis. *J Antimicrob Chemother.* 2004 May;53(5):848-52.
- 10) Bellmann R, Kuchling G, Dehghanyar P, **Zeitlinger M**, Minar E, Mayer BX, Muller M, Joukhadar C. Tissue pharmacokinetics of levofloxacin in human soft tissue infections. *Br J Clin Pharmacol.* 2004 May;57(5):563-8.
- 11) **Zeitlinger M**, Graninger W, Joukhadar C. Pharmacokinetics of the macrolides azithromycin, clarithromycin and roxithromycin in plasma and tissue – are there significant differences? *Wiener Klinische Wochenschrift.* 2004; 11-12a: 18-24.
- 12) Graninger W, **Zeitlinger M**. Clinical applications of levofloxacin for severe infections. *Chemotherapy.* 2004;50 Suppl 1:16-21.
- 13) Brunner M, Langer O, Dobrozemsky G, Muller U, **Zeitlinger M**, Mitterhauser M, Wadsak W, Dudczak R, Kletter K, Muller M. [18F]Ciprofloxacin, a new positron emission tomography tracer for non invasive assessment of the tissue distribution and pharmacokinetics of ciprofloxacin in humans. *Antimicrob Agents Chemother.* 2004 Oct;48(10):3850-7.
- 14) **Zeitlinger M**, Sauermann R, Traunmuller F, Georgopoulos A, Muller M, Joukhadar C. Impact of plasma protein binding on antimicrobial activity using time-killing curves. *J Antimicrob Chemother.* 2004 Nov;54(5):876-80.
- 15) Gattringer R, Urbauer E, Traunmuller F, **Zeitlinger M**, Dehghanyar P, Zeleny P, Graninger W, Muller M, Joukhadar C. Pharmacokinetics of telithromycin in plasma and soft tissues after single-dose administration to healthy volunteers. *Antimicrob Agents Chemother.* 2004 Dec;48(12):4650-3.

- 16) Sauer mann R, Delle-Karth G, Marsik C, Steiner I, Mayer BX, **Zeitlinger M**, Georgopoulos A, Muller M, Joukhadar C. Pharmacokinetics and pharmacodynamics of cefpirome in subcutaneous adipose tissue of septic patients. *Antimicrob Agents Chemother.* 2005 Feb;49(2):650-5.
- 17) Langer O, Brunner M, **Zeitlinger M**, Ziegler S, Muller U, Dobrozemsky G, Lackner E, Joukhadar C, Mitterhauser M, Wadsak W, Minar E, Dudczak R, Kletter K, Muller M. In vitro and in vivo evaluation of [(18)F]ciprofloxacin for the imaging of bacterial infections with PET. *Eur J Nucl Med Mol Imaging.* 2005 Feb;32(2):143-50.
- 18) Dehghanyar P, Bürger C, **Zeitlinger M**, Islinger F, Kovar F, Muller M, Kloft C, Joukhadar C. Penetration of linezolid into soft tissues after single and multiple doses to healthy volunteers. *Antimicrob Agents Chemother.* 2005 Jun;49(6):2367-71.
- 19) Traunmuller F, Gattringer R, **Zeitlinger M**, Graninger W, Muller M, Joukhadar C. Determination of telithromycin in human plasma and microdialysates by high-performance liquid chromatography. *J Chromatogr B Analyt Technol Biomed Life Sci.* 2005 Aug 5;822(1-2):133-6.
- 20) Traunmuller F, Haslinger I, Lagler H, Wolfgang G, **Zeitlinger M**, Abdel Salam HA. Influence of the washing buffer composition on the sensitivity of an enzyme-linked immunosorbent assay using mycobacterial glycolipids as capture antigens. *J Immunoassay Immunochem.* 2005;26(3):179-88.
- 21) **Zeitlinger M**, Schmidinger M, Zielinski CC, Chott A, Raderer M. Effective treatment of a peripheral T-cell lymphoma/lymphoepitheloid cell variant (Lennert's lymphoma) refractory to chemotherapy with the CD-52 antibody alemtuzumab. *Leuk Lymphoma.* 2005 May;46(5):771-4.
- 22) **Zeitlinger M**, Erovic B, Sauer mann R, Georgopoulos A, Muller M, Joukhadar C. Plasma concentrations might lead to overestimation of target site activity of piperacillin in patients with sepsis. *J Antimicrob Chemother.* 2005 Oct;56(4):703-8.
- 23) Langer O, Karch R, Muller U, Dobrozemsky G, Abraham A, **Zeitlinger M**, Lackner E, Joukhadar C, Dudczak R, Kletter K, Muller M, Brunner M. Combined PET and Microdialysis for In Vivo Assessment of Intracellular Drug Pharmacokinetics in Humans. *J Nucl Med.* 2005 Nov;46(11):1835-41.
- 24) **Zeitlinger M**, Muller M, Joukhadar C. Lung microdialysis – a powerful tool for the determination of exogenous and endogenous compounds in the lower respiratory tract. *AAPS J.* 2005 Oct 22;7(3):E600-8.
- 25) Traunmuller F, Steiner I, **Zeitlinger M**, Joukhadar C. Development of a high-performance liquid chromatography method for the determination of caspofungin with amperometric detection and its application to in vitro microdialysis experiments. *J Chromatogr B Analyt Technol Biomed Life Sci.* 2006 Nov 7;843(2):142-6.
- 26) Gattringer R, Meyer B, Heinz G, Guttmann C, **Zeitlinger M**, Joukhadar C, Dittrich P, Thalhammer F. Single-dose pharmacokinetics of fosfomycin during continuous venovenous haemofiltration. *J Antimicrob Chemother.* 2006 Aug;58(2):367-71.
- 27) **Zeitlinger M**, Marsik C, Steiner I, Sauer mann R, Seir K, Jilma B, Wagner O, Joukhadar C. Immunomodulatory effects of fosfomycin in an endotoxin model in human blood. *J Antimicrob Chemother.* 2007 Feb;59(2):219-23.
- 28) **Zeitlinger MA**, Traunmuller F, Abraham A, Muller MR, Erdogan Z, Muller M, Joukhadar C. A pilot study testing whether concentrations of levofloxacin in interstitial space fluid of soft tissues may serve as a surrogate for predicting its pharmacokinetics in lung. *Int J Antimicrob Agents.* 2007 Jan;29(1):44-50.
- 29) **Zeitlinger B**, **Zeitlinger M**, Leitner I, Muller M, Joukhadar C. A clinical scoring system for the prediction of target site penetration of antimicrobials in septic patients. *Clin Pharmacokinet.* 2007;46(1):75-83.

- 30) Sauermann R, Marsik C, Steiner I, Seir K, Civtko T, **Zeitlinger M**, Wagner O, Joukhadar C. The immunomodulatory effects of fosfomycin in experimental human endotoxemia. *Antimicrob Agents Chemother.* 2007 May;51(5):1879-81.
- 31) Traunmuller F, **Zeitlinger M**, Zeleny P, Muller M, Joukhadar C. Single- and multiple-dose pharmacokinetics of oral clarithromycin in soft tissues determined by microdialysis. *Antimicrob Agents Chemother.* 2007 Sep;51(9):3185-9.
- 32) **Zeitlinger M**, Sauermann R, Fille M, Hausdorfer J, Leitner I, Müller M. Plasma protein binding of fluoroquinolones affects antimicrobial activity. *J Antimicrob Chemother.* 2008 Mar;61(3):561-7.
- 33) Hutschala D, Kinstner C, Skhirtladze K, Mayer-Helm BX, **Zeitlinger M**, Wisser W, Müller M, Tschernko E. The impact of perioperative atelectasis on antibiotic penetration into lung tissue: an in vivo microdialysis study. *Intensive Care Med.* 2008 Oct;34(10):1827-34.
- 34) Ehrlich HJ, Müller M, Oh HM, Tambyah PA, Joukhadar C, Montomoli E, Fisher D, Berezuk G, Fritsch S, Löw-Baselli A, Vartian N, Bobrovsky R, Pavlova BG, Pöllabauer EM, Kistner O, Barrett PN; Baxter H5N1 Pandemic Influenza Vaccine Clinical Study Team. Collaborators: Marth E, Konior R, Sonnenburg F, Birthistle K, Dvorak T, Geyer S, Kraft M, Leitgeb MC, Maritsch F, Phillipson L, Robotka E, Abraham A, Bauer M, Brunner M, Cornea A, Drucker C, Erdogan Z, Griss J, Heinisch B, Kovar F, Lackner E, Lambers C, Langer O, Leitner I, Marsik C, Poepl W, Popovic M, Sauermann R, Schaberl R, Sodeck G, Thallinger C, Traunmueller F, Wagner C, **Zeitlinger M**, Chua SK, Chuin S, Fong R, Foo AS, Koh AG, Lim PK, Yap SY, Yew LH, Goh JW, Hsu LY, Loke CW, Ng JY, Toh EL, Weatherill P, Zhou YP. A clinical trial of a whole-virus H5N1 vaccine derived from cell culture. *N Engl J Med.* 2008 Jun 12;358(24):2573-84.
- 35) Sauermann R, Schwameis R, Fille M, Camuz Ligios ML, **Zeitlinger M**. Antimicrobial activity of cefepime and rifampicin in cerebrospinal fluid in vitro. *J Antimicrob Chemother.* 2008 Nov;62(5):1057-60.
- 36) **Zeitlinger M**, Wagner CC, Heinisch B. Ketolides - the modern relatives of macrolides: the pharmacokinetic perspective. *Clin Pharmacokinet.* 2009;48(1):23-38.
- 37) Beer J, Wagner CC, **Zeitlinger M**. Protein Binding of Antimicrobials: Methods for Quantification and for Investigation of its Impact on Bacterial Killing. *AAPSJ.* 2009 Mar;11(1):1-12.
- 38) Wagner CW, Biollaz B, **Zeitlinger M**, Buclin T. „Iatrogenic cascade“: doing harm by treating harm? *Wien Med Wochenschr.* 2009;159(1-2):53-57.
- 39) Wagner CC, Steiner I, **Zeitlinger M**. Daptomycin elimination by CVVH in vitro: evaluation of factors influencing sieving and membrane adsorption. *Int J Clin Pharmacol Ther.* 2009 Mar;47(3):178-86.
- 40) Sauermann R, Schwameis R, Fille M, Camuz Ligios ML, **Zeitlinger M**. Cerebrospinal fluid impairs antimicrobial activity of fosfomycin in vitro. *J Antimicrob Chemother.* 2009 Jul 21. *J Antimicrob Chemother.* 2009 Oct;64(4):821-3.
- 41) Bauer M, Karch R, Neumann F, Abraham A, Wagner CC, Kletter K, Müller M, **Zeitlinger M**, Langer O. Age dependency of cerebral P-gp function measured with(R)-[11C]verapamil and PET. *Eur J Clin Pharmacol.* 2009 Sep;65(9):941-6.
- 42) Ehrlich HJ, Müller M, Fritsch S, **Zeitlinger M**, Berezuk G, Löw-Baselli A, van der Velden MV, Pöllabauer EM, Maritsch F, Pavlova BG, Tambyah PA, Oh HM, Montomoli E, Kistner O, Noel Barrett P. A Cell Culture (Vero)-Derived H5N1 Whole-Virus Vaccine Induces Cross-Reactive Memory Responses. *J Infect Dis.* 2009 Oct 1;200(7):1113-8.
- 43) Capan M, Keltner S, Thalhammer F, Winkler S, Jäger W, **Zeitlinger M**, Ramharter M. Intra-cystic drug concentration of albendazole sulphoxide in patients with *Echinococcus granulosus* cysts. *Am J Trop Med Hyg.* 2009 Oct;81(4):712-3.



- 44)Wagner CC, Bauer M, Karch R, Feurstein T, Kopp S, Chiba P, Kletter K, Löscher W, Müller M, **Zeitlinger M**, Langer O. 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.* 2009 Dec;50(12):1954-61.
- 45)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.
- 46)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.
- 47)Lambers C, Burian B, Binder P, Ankersmit HJ, Wagner C, Müller M, **Zeitlinger M**. Early immunomodulatory effects of linezolid in a human whole blood endotoxin model. *Int J Clin Pharmacol Ther.* 2010 Jul;48(7):419-24.
- 48)Krasniqi SH, **Zeitlinger M**, Bauer S. Comparison between the Immunoassay and High Performance Liquid Chromatography for Therapeutic Monitoring of Carbamazepine and Phenytoine. *Biochemia Medica.* Volume 20, October (<https://doi.org/10.11613/BM.2010.044>)
- 49)Burian A, Wagner C, Stanek J, Manafi M, Böhmendorfer M, Jäger W, **Zeitlinger M** Plasma protein binding may reduce antimicrobial activity by preventing intra-bacterial uptake of antibiotics – example clindamycin. *J Antimicrob Chemother.* 2011 Jan;66(1):134-7.
- 50)Crowe BA, Brühl P, Gerencer M, Schwendinger MG, Pilz A, Kistner O, Koelling-Schlebusch K, Aichinger G, Singer J, **Zeitlinger M**, Müller M, Ehrlich H, Barrett PN. Evaluation of the cellular immune responses induced by a non-adjuvanted inactivated whole virus A/H5N1/VN/1203 pandemic influenza vaccine in humans. *Vaccine.* 2010 Dec 16;29(2):166-73.
- 51)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 14C- and 11C-Labelled Verapamil. *Clin Pharmacokinet.* 2011 Feb 1;50(2):111-20.
- 52)Erdogan-Yildirim Z, Burian A, Manafi M, **Zeitlinger M**. Impact of pH on bacterial growth and activity of recent fluoroquinolones in pooled urine. *Res Microbiol.* 2011 Apr;162(3):249-52.
- 53)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.
- 54)**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.
- 55)Matzneller P, Manafi M, **Zeitlinger M**. Antimicrobial effect of statins: organic solvents might falsify microbiological testing results. *Int J Clin Pharmacol Ther.* 2011 Nov;49(11):666-71.
- 56)Latzke D, Marhofer P, Kettner SC, Koppatz K, Turnheim K, Lackner E, Sauermann R, Müller M, **Zeitlinger M**. Pharmacokinetics of the local anesthetic ropivacaine after transversus abdominis plane block in healthy volunteers. *Eur J Clin Pharmacol.* 2012 Apr;68(4):419-25.
- 57)Bauer M, **Zeitlinger M**, Karch R, Matzneller P, Stanek J, Jäger W, Böhmendorfer M, Wadsak W, Mitterhauser M, Bankstahl JP, Löscher W, Koeppe M, Kuntner C, Müller M, Langer O. Pgp-Mediated Interaction Between (R)-[(11)C]Verapamil and Tariquidar at

- the Human Blood-Brain Barrier: A Comparison With Rat Data. *Clin Pharmacol Ther.* 2012 Feb;91(2):227-33.
- 58) Krasniqi S, Matzneller P, Kinzig M, Sörgel F, Hüttner S, Lackner E, Müller M, **Zeitlinger M**. Blood, tissue and intracellular concentrations of Erythromycin and its metabolite anhydro-erythromycin during and after end of therapy. *Antimicrob Agents Chemother.* 2012 Feb;56(2):1059-64.
- 59) 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.
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