Weiss-Tessbach, Matthias, MD, PhD, MSc, BSc

(formerly: Karer)

Clinical researcher and physician-scientist focused on histamine research and clinical pharmacology, with experience in translational models of anaphylaxis, histamine-induced hypotension, and early-phase clinical trials.

Personal Details

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Publications: https://scholar.google.com/citations?user=4z_LrOsAAAAJ&hl

Education

2024 – ongoing	Residency in Laboratory Medicine, Medical University of Vienna
2022 - 2024	Residency in Internal Medicine, Specialty: Infectious Diseases and Tropical Medicine
2022-2023	Basic Clinical rotations: Department of Clinical Pharmacology, Department of Cardiac Surgery and Department of Medicine I
2018 - 2022	Ph.D. (MD-Ph.D. Excellence-program), Department of Clinical Pharmacology, Medical University of Vienna, Austria
2015 - 2021	Master of Science (M.Sc.) in Molecular Biology, University of Vienna, Austria
2014 - 2020	Medical School (M.D.), Medical University of Vienna, Austria
2012 - 2015	Bachelor of Science (B.Sc.) in Biomedicine and Biotechnology, University of Veterinary Medicine, Vienna, Austria

Positions

2018 – ongoing Research Associate on Department of Clinical Pharmacology and Department of Medicine I

- Teaching activities at the Medical University of Vienna
- Conducting studies according to the Austrian Medicines Act (AMG) and Medical Devices Act (MPG)
- Clinical Trials Information System (CTIS) submission of clinical trials
- Conducting Phase I, II and III trials
- Leading, Conducting and Supervision of animal experiments in mice, rats and guinea pigs
- Supervision of Master and Diploma students
- Annual Good Clinical Practice (GCP) Training and Exam

Research interests

Histamine metabolism in anaphylaxis: My research focuses on histamine and its degradation by diamine oxidase (DAO). We demonstrated the protective effect of DAO in mice and guinea pigs with histamine-induced shock and are currently establishing a human model of histamine-induced hypotension to evaluate and improve current therapies for hypersensitivity-related cardiovascular compromise.

Selected Publications

1. **Weiss-Tessbach M,** Dizdarevic AM, Bischof T, Firbas C, Taschner A, Ritter-Hobl EL, Steinlechner B, Fischer E, Sonnberger L, Gelbenegger G, Siller-Matula JM, Schoergenhofer C, Jilma B. Effect of Intramuscular Adrenaline on Histamine-Induced Hypotension: A Randomised Placebo-Controlled Pilot Trial. Allergy. 2026 . doi: 10.1111/all.70277. PMID: 41771778.
2. **Weiss-Tessbach M**, Haider T, Gowran A, Schubert L, Mühlbacher J, Brankovic J, Wahrmann M, Jilma B, Boehm T. COVID-19 mRNA-1273 vaccination induced mast cell activation with strongly elevated Th_2 cytokines in a systemic mastocytosis patient. Inflammation Research. 2025 doi: 10.1007/s00011-025-02032-5. PMID: 40299000;
3. **Weiss-Tessbach M**, Dizdarevic AM, Kupis A, Bischof T, Firbas C, Quehenberger P, Derhaschnig U, Frimmel M, Jilma B, Schoergenhofer C. Osmotic laxatives do not alter dabigatran plasma concentration in healthy volunteers - a randomized, controlled, cross-over trial. Frontiers in Pharmacology. 2025 doi: 10.3389/fphar.2025.1579014. PMID: 40421205
4. Jilma B, **Weiss-Tessbach M**. Remibrutinib in Chronic Spontaneous Urticaria. New England Journal of Medicine. 2025 doi: 10.1056/NEJMc2504726. PMID: 40435481.
5. **Weiss-Tessbach M**, Reiter B, Gludovacz E, Boehm T, Jilma J, Rager-Resch M. Recombinant human diamine oxidase prevents

haemodynamic effects of continuous histamine infusion in guinea pigs. Inflammation research. 2023 doi: 10.1007/s00011-023-01783-3

6. **Weiss-Tessbach M**, Ratzinger F, Obermueller M, Burgmann H, Staudinger T, Robak O, Schmid M, Roessler B, Jilma B, Kussmann M, Traby L. Biomarkers for differentiation of COVID-19 or ECMO related inflammation and bacterial/fungal infections in critically ill patients: A prospective observational study. Frontiers in Medicine. 2022. doi: 10.3389/fmed.2022.917606
7. **Karer M**, Rager-Resch M, Haider T, Petroczi K, Gludovacz E, Borth N, Jilma B, Boehm T. Diamine oxidase knockout mice are not hypersensitive to orally or subcutaneously administered histamine. Inflammation Research. 2022. doi: 10.1007/s00011-022-01558-2
8. **Karer M**, Haider T, Kussmann M, Obermüller M, Tiehen C, Burgmann H, Lagler H, Traby L. Treatment of legionellosis including a single intravenous dose of 1.5 g azithromycin: 18-year experience at a tertiary care hospital. International Journal of Antimicrobial Agents. 2022. doi: 10.1016/j.ijantimicag.2021.106481
9. **Karer M**, Kussmann M, Ratzinger F, Obermüller M, Reischer V, Winkler HM, Kriz R, Burgmann H, Jilma B*, Lagler H. Different Types of Coagulase are associated with 28-day Mortality in Patients with Staphylococcus aureus Bloodstream Infections. Frontiers in Cellular and Infection Microbiology. 2020 May 19. 10:236: doi: 10.3389/fcimb.2020.00236
10. **Karer M**, Stiasny K, Zeitlinger M, Jilma B. Subcutaneous injection of mRNA vaccines against severe acute respiratory syndrome coronavirus 2: an option for severe bleeding disorders or anticoagulated patients? Blood Coagulation and Fibrinolysis. 2021 April 30. 30:00-00. doi: 10.1097/MBC.0000000000001048

Additional research achievements

International conference presentation: Presented original research at leading international conferences, including the American Academy of Allergy, Asthma & Immunology (AAAAI) Congress 2026 (Philadelphia, PA, #824), the International Society on Thrombosis and Haemostasis (ISTH) Congress 2025 (Washington, DC, #PB0653) and 2024 (Bangkok, #PB1037), the American Society of Hematology (ASH) Annual Meeting 2023 (San Diego, #3914), and the European Congress of Clinical Microbiology and Infectious Diseases (ECCMID) 2020 (Paris, P_2005).

Support for young researchers: Mentor in the Medical University of Vienna's senior mentoring program for medical students. Supervision of multiple Bachelor, Master, and Diploma theses in the fields of clinical pharmacology, histamine research, and translational medicine.

FELASA B: Certified in experimental biomedical research in animals (FELASA B), Medical University of Vienna, 2018.

Vienna, March 14th 2026