

Curriculum vitae

1. Personal Data **Klaus Georg Schmetterer**

Date of Birth	April 6, 1981
Place of Birth	Vienna
Nationality	Austria
Civil status	Married
Acad. Degree	M.D., Ph.D.
Current Position	Specialist in Laboratory Medicine
Work Address	Dep. of Laboratory Medicine, Medical University of Vienna Waehringer Guertel 18-20, 1090 Vienna, Austria T: (*43 1) 40400-67530
ORCID ID	0000-0001-9328-4871

2. Main areas of research: Mechanisms of T cell activation and modulation

3. Scientific Education and Career History

1999	High school degree with distinction, Secondary Grammar School, Vienna, Austria
1999-2000	Civilian Service, Caritas Socialis, Vienna, Austria
2000-2005	Student of Molecular Biology, University of Vienna
2002-2010	Student of Human Medicine, Medical University of Vienna
2004-2005	Master Thesis at the Institute of Immunology, Medical University of Vienna
2005	M.Sc. Degree in Molecular Biology, University of Vienna
2006 - 2011	Ph.D. Student at the Institute of Immunology, Medical University of Vienna
2010	M.D. Degree, Medical University of Vienna
2011	Ph.D. Degree in Molecular Biology with distinction, University of Vienna
2010 - 2012	Residency in Immunology, Institute of Immunology, Medical University of Vienna
2012-2018	Residency in Laboratory Medicine, Department of Laboratory Medicine, Medical University of Vienna
2017	<i>Venia docendi</i> in Laboratory Medicine, Medical University of Vienna
2018-current	Specialist in Laboratory Medicine, Department of Laboratory Medicine, Medical University of Vienna
2018	Tenure-track position (Assistant Professor), Medical University of Vienna

2020-2021 Six month tenure as guest scientist at the University Clinics Regensburg, Germany

2021-current Tenure track position (Associate Professor, Ap.Prof.), Medical University of Vienna

4. Publications

total number of scientific publications: **69**

overall number of citations: **>2600**

5. Professional Awards and Honours

2011 Best oral abstract award, World Allergy Congress, Cancun, Mexico

2012 Award for the best thesis, Austrian Society for Allergology and Immunology, ÖGAI

6. Editorial boards memberships

Since 2015 Scientific Reports, Section Editor for Immunology

7. Top 10 Publications (original articles)

- Côte-Real BF, Hamad I, ... **Schmetterer KG**, ... Jantsch J, Müller DN, Kleinewietfeld M. Sodium perturbs mitochondrial respiration and induces dysfunctional Tregs. *Cell Metab.* 2023 Feb 7;35(2):299-315.e8. doi: 10.1016/j.cmet.2023.01.009.
- Kovarik JJ, Bileck A, Hagn G, ... ,Gyöngyösi M, **Schmetterer KG**, Gerner C. A multi-omics based anti-inflammatory immune signature characterizes long COVID-19 syndrome. *iScience* 2023 Jan 20;26(1):105717.doi: 10.1016/j.isci.2022.105717.
- Gerner MC, Bileck A, Janker L, Ziegler LS, Öhlinger T, Raeven P, Müllner EW, Salzer U, Gerner C, **Schmetterer KG**, Baron DM Packed red blood cells inhibit T-cell activation via ROS-dependent signaling pathways. *J Biol Chem.* 2021 Jan-Jun;296:100487. doi: 10.1016/j.jbc.2021.100487.
- Ziegler LS, Gerner MC, Schmidt RLJ, Trapin D, Steinberger P, Pickl WF, Sillaber C, Egger G, Schwarzingner I, **Schmetterer KG**. Attenuation of canonical NF-κB signaling maintains function and stability of human Treg. *FEBS J.* 2021 Jan;288(2):640-662. doi: 10.1111/febs.15361.
- Gerner MC, Ziegler LS, Schmidt RLJ, Krenn M, Zimprich F, Uyanik-Ünal K, Konstantopoulou V, Derdak S, Del Favero G, Schwarzingner I, Boztug K, **Schmetterer KG**. The TGF-β/SOX4 axis and ROS-driven autophagy co-mediate

CD39 expression in regulatory T-cells. *FASEB J.* 2020 Jun;34(6):8367-8384. doi: 10.1096/fj.201902664.

- **Schmetterer KG**, Goldhahn K, Ziegler LS, Gerner MC, Schmidt RLJ, Themanns M, Zebedin-Brandl E, Trapin D, Leitner J, Pickl WF, Steinberger P, Schwarzingler I, Marculescu R. Overexpression of PDE4A Acts as Checkpoint Inhibitor Against cAMP-Mediated Immunosuppression in vitro. *Front Immunol.* 2019 Jul 30;10:1790. doi: 10.3389/fimmu.2019.01790
- Gerner MC, Niederstaetter L, Ziegler L, Bileck A, Slany A, Janker L, Schmidt RLJ, Gerner C, Del Favero G, **Schmetterer KG**. Proteome Analysis Reveals Distinct Mitochondrial Functions Linked to Interferon Response Patterns in Activated CD4+ and CD8+ T Cells. *Front Pharmacol.* 2019 Jul 10;10:727. doi: 10.3389/fphar.2019.00727.
- Schmidt RL, Jutz S, Goldhahn K, Witzeneder N, Gerner MC, Trapin D, Greiner G, Hoermann G, Steiner G, Pickl WF, Burgmann H, Steinberger P, Ratzinger F, **Schmetterer KG**. Chloroquine inhibits human CD4+ T-cell activation by AP-1 signaling modulation. *Sci Rep.* 2017 Feb 7;7:42191. doi: 10.1038/srep42191.
- Prodinger J, Loacker LJ, Schmidt RL, Ratzinger F, Greiner G, Witzeneder N, Hoermann G, Jutz S, Pickl WF, Steinberger P, Marculescu R, **Schmetterer KG**. The tryptophan metabolite picolinic acid suppresses proliferation and metabolic activity of CD4+ T cells and inhibits c-Myc activation. *J Leukoc Biol.* 2016 Apr;99(4):583-94. doi: 10.1189/jlb.3A0315-135R.
- **Schmetterer KG**, Neunkirchner A, Wojta-Stremayr D, Leitner J, Steinberger P, Pickl WF. STAT3 governs hyporesponsiveness and granzyme B-dependent suppressive capacity in human CD4+ T cells. *FASEB J.* 2015 Mar;29(3):759-71. doi: 10.1096/fj.14-257584.