

Academic curriculum vitae: Wilfried ELLMEIER

Date of Birth: September 9, 1966
Place of Birth: Mödling
Nationality: Austrian
Acad. Degree: Mag.Dr. (Ph.D), Professor
Current Position: Full Professor of Immunobiology, Head of the Institute of Immunology
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Main Research Interests

Our long-term research interest is to characterize molecular mechanisms that regulate the development and function of T lymphocytes. In ongoing studies we address the following research topics:

- The role of histone deacetylases in the regulation of T cell-mediated immunity
- Transcriptional control of T cell development
- Regulation of peripheral T cell function and maintenance of T cell lineage identity and integrity

The experimental strategies to address our research interests include multi-color flow-cytometry, a variety of immunological tools, biochemical and molecular approaches, retroviral-mediated gene transduction into hematopoietic stem cells, next generation sequencing and mouse molecular genetics tools.

Scientific Education and Career History

1985	University entrance qualification, HTL-Mödling; with distinction
1985 – 1990	Studies in Biochemistry, University of Vienna; with distinction
1989 – 1990	Diploma thesis at the Institute for Molecular Pathology (IMP) in Vienna
1990 – 1994	Doctoral studies, University of Vienna; PhD Thesis performed at the Institute for Molecular Pathology (IMP) in Vienna; with distinction
1995 – 1999	Postdoctoral Fellow in Dan Littman's laboratory, Skirball Institute, Howard Hughes Medical Institute, New York University Medical Center, New York, NY, USA
Since 2000	Group Leader, Institute of Immunology, University of Vienna
12/2002	Habilitation in Immunology, University of Vienna Medical School
2005 – 2007	Associate Professor (a.o.Univ.Prof), Medical University of Vienna
Since 07/2007	Full Professor of Immunobiology

Career-related Fellowships (selected)

1995 – 1997	Erwin-Schrödinger Postdoctoral Fellowship, FWF
2000 – 2002	APART Habilitation Fellowship, Austrian Academy of Sciences

Supervision of Graduate Students and Postdoctoral Fellows

Since 2000	Supervisor of 10 Postdocs, 22 PhD students (18 already finished), 8 master students
Fellowships and prizes won by lab members	<u>Postdoctoral fellowships:</u> German Research Foundation. <u>PhD fellowships:</u> DOC - Austrian Academy of Sciences; Schering foundation; L'Oreal fellowship – women in Science – Austria; <u>Prizes:</u> Karl Landsteiner prize (3x); Sanofi-Aventis prize (3x); Best dissertation award (3x)

Teaching Coordination Activities (selected)

Since 2008	Program coordinator of MedUni Wien PhD program "Immunology" (it is one of the largest thematic programs): www.meduniwien.ac.at/phd-immunology
Since 2010	Deputy speaker: FWF/MedUni Wien PhD program "Inflammation and Immunity"

Institutional Responsibilities (Experience in Scientific Management and Organization)(selected)

2011 - 2020	Speaker of the coordination board of the MedUni Wien "Immunology Research Cluster (IRC)": cluster.meduniwien.ac.at/irc
2019 - now	Speaker and coordinator of the FWF SFB-F70 (Special Research Program)
2020 - now	Deputy Head of the Center for Pathophysiology, Infectiology and Immunology
10/2020 - now	Head of the Institute of Immunology
09/2021 - now	Head of the MedUni Wien "Core Facility Laboratory animal breeding and husbandry"

Commission of Trust (selected)

2000 - now	Reviewer for Nature, Nature Immunology, Science Immunology, Nature Medicine, Immunity, Journal of Experimental Medicine, EMBO Journal, Journal of Immunology, European Journal of Immunology, Frontiers in Immunology, Immunology Letters, etc.
2000 - now	Grant reviewer for MRC (UK), Telethon (Italien), ANR (France), Dutch Reumafonds, Czech Science Foundation, BBSRC (UK)
2005 - 2019	Member: Austrian Academy of Sciences APART and DOC fellowship committee
2014 - now	Academic Editor of FEBS Letters
2019 - now	Scientific board member of the Austrian Science Fund (FWF)
2018 - 2023	President elect (18-19), President (20-21) and past-president (22-23) of the Biomedical Alliance in Europe
2025 - 2026	President of the Austrian Society for Allergology and Immunology (ÖGAI)

10 Most Important Publications

90 scientific papers (www.ncbi.nlm.nih.gov/pubmed/?term=ellmeier). Based on Google Scholar, the publications received more than >12000 citations with a current life-time Hirsch *h*-index of 44.

1. **Ellmeier W***, Sunshine MJ, Maschek R and Littman, DR (2002). Combined deletion of CD8 locus cis-regulatory elements affects initiation but not maintenance of CD8 expression. *Immunity* 16, 623-634. *corresponding author (from the transition phase postdoc/independent principal investigator)
2. Bilic I, Koesters C, Unger B, Sekimata M, Hertweck A, Maschek R, Wilson, CB and **Ellmeier, W** (2006). Negative regulation of CD8 expression via Cd8 enhancer-mediated recruitment of the zinc finger protein MAZR. *Nat Immunol.* 7, 392-400, doi:10.1038/ni1311.
3. Raberger J, Schebesta A, Sakaguchi S, Boucheron N, Blomberg EM, Bergloe A, Kolbe T, Smith CIE, Rüllicke T and **Ellmeier W.** (2008). The transcriptional regulator PLZF induces the development of CD44 high memory phenotype T cells. *PNAS* 105, 17919-17924, doi:10.1073/pnas.0805733105.
4. Sakaguchi S, Hombauer M, Bilic I, Naoe Y, Schebesta A, Taniuchi I and **Ellmeier, W.** (2010). The zinc-finger protein MAZR is part of the transcription factor network that controls the CD4 versus CD8 lineage fate of double-positive thymocytes. *Nat Immunol.* 11, 442-448, doi:10.1038/ni.1860. (selected in the News & Views section).
5. Hassan H, Sakaguchi S, Tenno M, Kopf A, Boucheron N, Carpenter AC, Egawa T, Taniuchi I and **Ellmeier, W.** (2011). Cd8 enhancer E8I and Runx factors regulate CD8alpha expression in activated CD8+ T cells. *PNAS* 108, 18330-18335, doi:10.1073/pnas.1105835108.
6. Boucheron N, Tschisnarov R, Goeschl L, Moser MA, Lagger S, Sakaguchi S, Winter M, Lenz F, Vitko, D, Breitwieser FP, Haust L, Hassan H, Bennett KL, Colinge J, Schreiner W, Egawa T, Taniuchi I, Matthias P, Seiser C and **Ellmeier W*** (2014). CD4(+) T cell lineage integrity is controlled by the histone deacetylases HDAC1 and HDAC2. *Nat Immunol.* 15, 439-448, doi:10.1038/ni.2864. (*shared senior-authorship).
7. Sakaguchi S, Hainberger D, Tizian C, Tanaka H, Okuda T, Taniuchi I and **Ellmeier, W** (2015). MAZR and Runx Factors Synergistically Repress ThPOK during CD8+ T Cell Lineage Development. *J Immunol.* 195, 2879-2887, doi:10.4049/jimmunol.1500387.

8. Göschl L, Preglej T, Hamminger P, Bonelli M, Andersen L, Boucheron N, Gulich AF, Müller L, Saferding V, Mufazalov IA, Hirahara K, Seiser C, Matthia P, Penz, T, Schuster M, Bock C, Waisman A, Steiner G. and **Ellmeier, W** (2018). A T cell-specific deletion of HDAC1 protects against experimental autoimmune encephalomyelitis. *J Autoimmun.* 86, 51-61, doi:10.1016/j.jaut.2017.09.008.
9. Andersen L, Gülich AF, Alteneider M, Preglej T, Orola MJ, Dhele N, Stolz V, Schebesta A, Hamminger P, Hladik A, Floess S, Krausgruber T, Faux T, Andrabi SBA, Huehn J, Knapp S, Sparwasser T, Bock C, Laiho A, Elo LL, Rasool O, Lahesmaa R, Sakaguchi S and **Ellmeier W** (2019). The Transcription Factor MAZR/PATZ1 Regulates the Development of FOXP3+ Regulatory T Cells. *Cell Rep.* 29(13):4447-4459.e6. doi: 10.1016/j.celrep.2019.11.089
10. Preglej T, Hamminger P, Luu M, Bulat T, Andersen L, Göschl L, Stolz V, Rica R, Sandner L, Waltenberger D, Tschismarov R, Faux T, Boenke T, Laiho A, Elo LL, Sakaguchi S, Steiner G, Decker T, Bohle B, Visekruna A, Bock C, Strobl B, Seiser C, Boucheron N and **Ellmeier W** (2020). Histone deacetylases 1 and 2 restrain CD4+ cytotoxic T lymphocyte differentiation. *JCI Insight* 5(4). pii: 133393. doi: 10.1172/jci.insight.133393.

Additional Scientific/Scholarly Research Achievements

Awards & Prizes (selected)

- 06/2001 START Prize of the Austrian Science Fund (most prestigious prize in Austria for young scientist; similar to ERC Starting Grant), 1110 k€ for 5 years
- Since 05/2012 Corresponding member of the Austrian Academy of Sciences

Organization of Scientific Meetings (membership in the steering and/or program committee)(selected)

- Co-organizer of the 2nd, 3rd and 4th Harald von Boehmer Midwinter Conference “Advances in Immunobiology”, 2017, 2019, 2024 Seefeld, Austria.
- Scientific program committee member of the European Congress of Immunology 2021, Belgrade, Serbia and 2024, Dublin, Ireland
- Chair of the scientific program committee, IUIS2025 Congress in Vienna, 17.-22.8. 2025 (World Congress of Immunology)

Invited presentations to conferences and/or international advanced schools (selected)

- 09/2022: Invited talk at the Joint Meeting of the German Society for Immunology (DGfI) the Austrian Society for Allergology and Immunology (ÖGAI), Hannover, Germany.
- 05/2024: Invited talk at the International ThymE meeting “T cell & thymus biology”, Porto, Portugal
- 10/2024: Invited talk at “Immuncon 2024” of the Indian Immunology Society, Bangalore, India

Research Funding (selected)

Since 2000, I was able to finance my laboratory with 20 internationally peer-reviewed research grants: total funding approx. > 8800 k€. Among the research grants was the highly competitive START prize 2001 of the Austrian Science Fund (similar to an ERC Starting Grant; 1100 k€/5years) and 2 special research programs (SFBs) of the FWF (only SFB funding directly to the Ellmeier group – either for coordination or subproject - has been included in the 8000 k€). One recent major funding is provided by the following grant:

- 03/2019 – Speaker and Coordinator of an Austrian Science Fund (FWF) Special Research Program: SFB-02/2027 F70. Project title: Histone deacetylases as regulators of T-cell-mediated immunity. Funding for Ellmeier: 2331k€ (coordination project) & 780k€ (sub-project) (Funding for the whole network of 8 research groups: 8930k€)

Review writing (selected)

- **Ellmeier, W.** and Seiser, C. (2018). Histone deacetylase function in CD4⁺ T cells. *Nature Reviews Immunology*, 18, 617-634; doi: 10.1038/s41577-018-0037-z.