

Andrea **Lorenz**

Molecular Biologist

I am curious about molecular biology and motivated to continously acquire new skills. I am very organized and independent in my own work and also experienced in coordinating projects and events within larger groups. I am a very social person and enjoy collaborations with colleagues and creating a supportive and collaborative environment.

Contact

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LinkedIn

Researcher Profile

Education

2023
Master's Degree in Immunobiology
University of Vienna

2021
Bachelor's Degree in Microbiology and Genetics
University of Vienna

Laboratory Skills

- Flow cytometric analyses
- Direct and indirect co-culture
- Flexcell Tension System
- Protein analysis (Western Blot, Luminex)
- RT-qPCR
- Mammalian and bacterial cell culture
- Mouse work (dissection, isolation of primary cells)
- Data analysis and presentation (GraphPad Prism, CytExpert, FlowJo, ImageJ, Excel)

Teaching Skills

- 5 years as a Volleyball coach
- Tutoring students
- Supervision of Master's students

Languages

German (native)
English (fluent)
French (intermediate)
Spanish (beginner)

Experience

2024-present PhD Thesis
Competence Center for Periodontal Research
Medical University I Vienna, Austria

γδ T Lymphocytes in Healthy and Inflamed Human Periodontal Soft Tissues
Supervised by Christian Behm

I am investigating the role of **γδ T lymphocytes** and their subsets in healthy and **periodontitis** affected human periodontal ligament and gingiva. I am exploring the reciprocal interaction between **human mesenchymal stromal cells** and γδ T cells in oral tissues *in vitro*.

2022-23 Master's Thesis
University of Veterinary Medicine I Vienna, Austria

Basic Characterization of the Hematopoietic System in Type I Interferon Deficient Mice
Supervised by Mathias Müller

By comparing the **first interferon-α deficient mouse model** to IFN-I and IFN-β deficient mice, I focused on the identification of functions specific to IFN-I subtypes in hematopoiesis under homeostatic conditions. The project investigated the abundance of specific **immune cell populations** and **protein analysis** of key players within the JAK/STAT pathway.

2020 Bachelor's Thesis
Technical University of Munich I Munich, Germany

Transcriptionally Enforced Differentiation of CD4$^+$ T Helper Cell Subsets
Supervised by Dietmar Zehn

Using **ectopic expression of lineage determining transcription factors,** I started to establish stable and irreversible differentiation of **murine CD4$^+$ T cells** into their respective subsets.

2016-2019 Internships
Department of Pathology, Agency for Health and Food Safety & GeoSphere Austria

Scientific Contributions

Publications (Co-Authorship)

Immunomodulatory activities of periodontal ligament-derived MSCs partly depend on their CD146 surface expression under specific cytokine conditions	Submitted October 2026
Orthodontic tension forces inhibit immunomediator expression in hPDL-MSCs under aseptic inflammatory conditions	Submitted October 2026
Palmitic Acid Alters the Immunomodulatory Ability of Periodontal Ligament MSCs	Submitted November 2026

Oral Presentation

γδ T-lymphocytes reciprocally interact with human periodontal ligament-derived MSCs	CED-IADR September 2026 Abstract Publication

Co-Authorship of three Abstracts
CED-IADR September 2026

- Palmitic Acid Disrupts the Immunomodulatory Ability of Periodontal Ligament MSCs
- Dental Implant-Derived Particles Affect the Immunomodulatory Properties of Gingiva-Derived MSCs
- Orthodontic Forces Affect HPDL-MSC Immunomodulation Toward Macrophages in Aseptic Inflammation

Awards and Prizes

- CED-IADR Robert Frank Award 2nd prize
- IADR Hatton Award Nominee
- CED-IADR Travel Grant Recipient

Poster Presentations

ÖGAI Annual Conference	November 2026
IRC Retreat	June 2026
NGI Summer School	September 2024

Membership in ÖGAI, NGI, IRC and CED-IADR