

Dr. Paul Engeroff received his PhD in Immunology from the University of Bern (Switzerland) in 2019 under the supervision of Prof. Monique Vogel. He then pursued postdoctoral training at Sorbonne Université in Paris (France) with Prof. David Klatzmann. Since 2023, he has led the Allergy and Autoimmunity Research Group at the Department of Rheumatology and Immunology, University Hospital Bern (Switzerland), in association to Prof. Martin Bachmann. Dr. Engeroff teaches basic and advanced immunology and serves as a tutor for problem-based learning at the University of Bern. He has authored over 28 peer-reviewed publications, frequently in *Allergy* and *The Journal of Allergy and Clinical Immunology*, and has been recognized with several awards, including two EAACI presentation prizes (2018, 2022), the Lutz-Zwillenberg Prize for best PhD thesis in life sciences at the University of Bern (2020), and a number of research project grants, such as from the Swiss National Science Foundation and the Novartis Foundation for Medical-Biological Research.

Dr. Engeroff's research has focused on the regulation of allergic immune responses, particularly the biology of IgE. His work characterized the distinct roles of the IgE receptors FccRI and CD23 (FccRII), revealing various mechanisms that regulate allergic effector cell activation. He has also contributed to the preclinical development of virus-like particle (VLP)-based vaccines, including candidates for allergy immunotherapy targeting major allergens or IgE. His investigations into natural anti-IgE autoantibodies demonstrated their importance in regulating serum IgE levels and their protective function in allergy. Furthermore, he studied the role interleukin-1 (IL-1) in regulating T follicular helper (Tfh) and regulatory T cells (Tfr) during germinal center B cell responses. In the context of allergic responses, he showed that IL-1R2 expression in Tfr cells controls the IgE/IgG antibody balance.

Building on his IL-1 research in Paris, he co-developed a novel IL-1-based strategy for allergy prevention and treatment, which led to a patent. This innovation is now being advanced toward clinical development through a translational program supported by the French technology transfer acceleration company SATT Lutech.

Looking ahead, Dr. Engeroff aims to continue bridging fundamental immunology and clinical innovation. His future research will focus on deepening our understanding of IgE biology, expanding the translational potential of immunotherapeutic strategies, and delineating the emerging role of IgE in autoimmune diseases—an area with significant implications for both diagnostics and therapeutic intervention.

https://www.bachmannlab.ch/team/dr-paul-engeroff/