

PhD position in Immunology

Allergies have become one of the most prevalent chronic illnesses over recent decades. Allergic diseases such as asthma, atopic dermatitis and food allergies seem to be directly linked to industrialization and urban lifestyles. The **Institute of Allergy Research (IAF) at Helmholtz Munich and the Center of Allergy and Environment (ZAUM) at the Technical University of Munich** carry out fundamental and translational research to elucidate the mechanisms underlying allergic diseases and to identify new preventive strategies and therapeutic targets.

The [Molecular Immunology group](#) within the institute, led by Dr. Lesly Calderon, is seeking a PhD student to join their research team. The group focuses on studying B-cell-mediated immune responses, specifically the processes of B lymphocyte activation and differentiation into effector cells, including antibody-secreting plasma cells and memory B cells. Their aim is to uncover new pathways and regulators of these processes and to study their molecular mechanisms of function. In allergies, B lymphocyte responses are characterized by the induction of B cells expressing immunoglobulin E (IgE). One of the group's main interests is discovering new regulators of IgE-secreting plasma cells, which are major drivers of allergic disease and thus a key target for future therapeutic interventions.

Your tasks

- Contribute to the development of in vivo and in vitro CRISPR/Cas9 screening systems for uncovering new regulators of IgE-mediated B cell responses.
- Explore the underlying molecular mechanisms and functions of the novel regulators.
- Technically, the projects will require handling mice, employing methods in molecular biology, cell biology, biochemistry, and utilizing single-cell analysis technologies.
- Plan experiments, analyze experimental data, write scientific publications, and present research findings in seminars and scientific conferences.
- Maintain up-to-date knowledge about the scientific literature related to the research topic.

You will have the opportunity to contribute to frontline research in immunology. The results of your work will help uncover novel molecular pathways that regulate the function of B cells and plasma cells in various contexts, such as natural infections, vaccine development, allergic diseases, antibody-mediated autoimmune disorders, and plasma-cell malignancies.



Your profile

- ⇒ Master's degree in Molecular Biology, Biomedical Sciences, Genetics, Biochemistry, or a related discipline that qualifies the candidate to enroll as a PhD student at the Technical University Munich, School of Medicine and Health.
- ⇒ Practical scientific expertise and strong theoretical background in fields like immunology, genetics, epigenetics, molecular biology or biochemistry.
- ⇒ Interest in doing research using mice as animal models.
- ⇒ Good command of the English language
- ⇒ High degree of scientific curiosity, creativity, flexibility, and enthusiasm to work in an interdisciplinary and international team.

Benefits

- ⇒ Scientific Training: Helmholtz Munich Graduate School
- ⇒ Career counseling: Career Center for PhD candidates
- ⇒ International Staff Service: Support with the relocation and integration process in Germany
- ⇒ Health Promotion: Sports, company doctor, mental health initiatives
- ⇒ Scientific Resources: State-of-the-art infrastructure and Core Facilities
- ⇒ Recreation: 30 days annual leave, flexi days, plus public holidays
- ⇒ **Munich** is considered to be one of the cities with the best quality of life worldwide. With its first-class universities and world-leading research institutions, it offers an intellectually stimulating environment.

Remuneration and social benefits are based on the collective wage agreement for public-sector employees at federal level (EG 13 65% TV EntgO Bund). The position is (initially) limited to three years, but an extension can be arranged depending on project demands.

To promote diversity, we welcome applications from talented people regardless of gender, cultural background, nationality, ethnicity, sexual identity, physical abilities, religion and age.

Interested in applying?

If you have any questions, feel free to contact **Dr. Lesly Calderon** (+49 89 318749116 or lesly.calderon@helmholtz-munich.de), who will be happy to help.

Our recruiting is decentralized - your application will be reviewed directly by the specialist department in which you could work in the future.

Please send your application only via our online application tool and with the following documents:

- Cover letter
- CV
- Contact details for at least two referees
- Degrees/Diplomas/Certificates
- References from recent employers

If you have obtained a university degree abroad, we will require further documents from you regarding the comparability of your degree. [Please request the Statement of Comparability for Foreign Higher Education Qualifications as early as possible.](#)

Application deadline: 20.05.2026