

Bachmair Lab

Master's Position

Introduction / Summary

The group of Andreas Bachmair investigates posttranslational modifications in the model plant *Arabidopsis thaliana*. One focus of interest is protein turnover via amino-terminal degradation signals. Degradation triggered by the first amino acid of a protein is essential for plant responses to environmental stimuli such as flooding, or response to pathogens. Additional information can be found in the references below, and on the Bachmair lab web site.

About the position / the research project

Experimental approaches planned for the work:

- Investigation of protein turnover in normal plants and in mutants with defects in components of the ubiquitin proteasome pathway. Changes in turnover by chemical compounds (inhibitors) shall also be monitored.
- The activity of plant ubiquitin ligases BIG, PRT7 and others shall be reconstituted by expression in the budding yeast.
- A fusion of BIG with biotinylation enzyme Turbo-ID shall be made via a knock-in approach.

Recent publications of the research group

Dambire C. *et al.*, 2026, <https://www.biorxiv.org/content/10.64898/2026.02.10.705009v2>.

Theodoulou F.L. *et al.*, 2026, <https://doi.org/10.1093/jxb/erag427>.

Rudi O. *et al.*, 2025, DOI: 10.1016/j.jmb.2025.168939. PMID: 39799992.

Candidates

Successful candidates should

- hold a (B. Sc.) degree in Molecular Biology, Biochemistry or a related field
- have experience with standard molecular biology techniques
- have interest in plant sciences

Application

- Please provide a CV, information on progress in the Master module and a statement of interest
- Send application to: andreas.bachmair@univie.ac.at
- By **October 25, 2026**
- Starting date can be November 2026 or later

Contact

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<https://www.maxperutzlabs.ac.at/research/research-groups/bachmair>

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The Max Perutz Labs are a research institute established by the University of Vienna and the Medical University of Vienna to provide an environment for excellent, internationally recognized research and education in the field of Molecular Biology. Dedicated to a mechanistic understanding of fundamental biomedical processes, scientists at the Max Perutz Labs aim to link breakthroughs in basic research to advances in human health. The Max Perutz Labs are located at the [Vienna BioCenter](#), one of Europe's hotspots for Life Sciences, and host around 40 research groups, involving approximately 450 scientists and staff from more than 50 nations.

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