

## Martinez Lab

# Master's Thesis: "Two functions - two sites: Revealing secrets of RNA ligation"

## Introduction / About the Martinez lab

We love the meticulous processing – cleavage, ligation and modifications – that RNA molecules experience in mammalian cells. We have discovered enzymes and co-factors that splice pre-tRNAs, the champion being the tRNA ligase complex (tRNA-LC). Following discovery, we dissect their regulation, physiology, and in vivo functions in health and disease.

## About the position / The research project

We have several projects in mind: 1) We found that the tRNA-LC exists in three isoforms. What do they do and where? 2) Why did Ashwin, the subunit that localizes the tRNA-LC into the nucleus (new!), only emerge in vertebrates? 3) Is the tRNA-LC involved in the export of intron-containing tRNAs post-splicing? Besides projects, we offer a vibrant and friendly atmosphere as well as collaborations within the VBC.

Photo: **Moritz Leitner**, your future co-supervisor, with Nuria Muñoz, awardee of the best talk at VBC Summer School 2025.



## Candidates

Successful candidates should be already enrolled in a Master Program, for instance the Master in Molecular Biology, have experience at the bench, and a very good background in biochemistry and molecular and cellular biology. We are looking for a student that enjoys adventuring into the unknown, and think, read and work hard towards a goal. We are going to mentor her/him in this direction!

## Application

If you are interested in this "RNAventure", please contact us with a CV, a short statement and, if possible, a letter of recommendation from a teacher or a supervisor until the end of February 2026.

## Contact

**Moritz Leitner**, PhD student at the RNA@core Doctoral School. [moritz.leitner@meduniwien.ac.at](mailto:moritz.leitner@meduniwien.ac.at).

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## About the Max Perutz Labs

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. [www.maxperutzlabs.ac.at](http://www.maxperutzlabs.ac.at)

### MAX PERUTZ LABS

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