

Ameres Lab

Master's Thesis Opportunity

In the **Ameres Lab**, we are looking for a driven, passionate master's student to delve into the mysteries of chemical RNA modifications that represent a novel layer in gene regulation referred to as the Epitranscriptome. Specifically, you will investigate the dynamics and molecular mechanisms underlying RNA uridylation and its functions in the prime model organism *Drosophila melanogaster* (*Dm*).

Who We Are – The Ameres Lab

We are an internationally competitive, innovative, and creative research group exploring fundamental cellular mechanisms in the regulation of gene expression and RNA metabolism. Our approaches merge genome-wide transcriptomics with state-of-the-art genetic, molecular, and biochemical methodologies.

Your Research Project

Chemical modifications are emerging as pivotal regulators of RNA fate and function. Among those, RNA uridylation, a posttranscriptional modification involving the non-templated addition of uridines to coding and non-coding RNAs, stands out as a conserved and prevalent modification. As part of an ERC- and FWF ESPRIT-funded project, you will focus on the mode-of-action and biological role of CG7163/Mkg-p, a putative nucleotidyltransferase in *Dm*. Despite its similarities with the mammalian uridylyltransferase TUT1 and *Dm* Tailor, the functions and RNA targets of CG7163/Mkg-p are yet to be understood. You will engage in a mix of biochemical techniques, high-throughput sequencing, and hands-on *in vivo* fly genetics. And you will learn and apply state-of-the-art experimental approaches including proximity protein labeling, time-resolved transcriptomics, and *in vitro* high-throughput enzymology. This project will not only equip you with diverse experimental skills but also shape your abilities to lead and present research projects.

The Ideal Candidate

The successful candidate is expected to be fluent in English, have excellent communication and interpersonal skills and to be highly motivated to become part of an international and multi-disciplinary research group. Candidates should hold a B.Sc. degree in Molecular Biology, Biochemistry or a related field and have basic laboratory experience.

How to Apply?

Keen to make an impact?

Forward your motivational letter and a detailed CV, emphasizing prior theoretical and practical experience, to annamaria.sgromo@univie.ac.at and ameres.applications@maxperutzlabs.ac.at.

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 47 research groups, involving around 400 scientists and staff from more than 50 nations.

www.maxperutzlabs.ac.at

MAX PERUTZ LABS

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