

Doctoral and Postdoctoral Positions
Gene Regulation and Chromatin Metabolism
Marta Russo Lab
Biomedical Center Munich (BMC), LMU Munich

I am establishing a **new research group** in the **Physiological Chemistry Department** at **BMC**, LMU Munich, funded by the **Emmy Noether Programme (DFG)**. My research focuses on understanding how nuclear acyl-CoA metabolism influences chromatin remodeling and transcriptional regulation. Mitochondrial enzymes that produce acyl-CoAs, essential metabolites for chromatin modifications and gene activity, have been observed to be present and functional in the nucleus, where they generate metabolic niches that enhance local nuclear acyl-CoA synthesis, thereby impacting gene activity. This project uses **omics-based approaches, metabolite tracing, proximity-labeling, and advanced imaging techniques** to explore how these nuclear metabolic enzymes regulate gene expression, interact with chromatin factors, and contribute to nuclear organization and function.

PhD Positions (2 openings)

Responsibilities:

- Conduct experiments (under expert mentorship) to study how nuclear acyl-CoA metabolism regulates gene expression and chromatin modifications.
- Apply molecular biology, biochemistry, and genomics techniques to study metabolic enzyme function in the nucleus.
- Collaborate on data analysis and integration with computational scientists.

Qualifications:

- MSc in Molecular Biology, Genetics, Biochemistry, Epigenetics, or a related field.
- Enthusiasm for fundamental research in gene regulation and metabolism and fluency in English.

Computational Postdoctoral Fellow (1 opening)

Responsibilities:

- Lead bioinformatics research on nuclear metabolism and chromatin regulation.
- Analyze functional genomics, proteomics and metabolomics datasets and develop computational pipelines for multi-omics data integration.
- Collaborate with Core Facility Bioinformatics and mentor PhD students.

Qualifications:

- PhD in Bioinformatics, Computational Biology, Genomics, or related discipline.
- Experience with functional genomics, proteomics, and chromatin biology.

The Offer

- Fully funded PhD & Postdoc positions (TV-L scale).
- LMU Graduate Program for career development & training.
- Access to state-of-the-art core facilities in genomics, proteomics, and bioinformatics.
- Dynamic, interdisciplinary research environment at BMC, part of the HighTech Campus in Grosshadern-Martinsried.

Application Process

Submit a single PDF including:

- ✓ CV (max. 2 pages)
- ✓ Brief research summary
- ✓ Contact details of two referees
- ✓ Academic transcript & degree certificates

Deadline: 31/04/2025

Start date: Flexible, July–Sept 2025

✉ Apply via email:

marta.russolab@gmail.com (Subject: Application for PhD/Postdoc – BMC_LMU Munich)

I welcome applications from candidates of all backgrounds and I am committed to fostering an inclusive and diverse research environment.