UNIL | Université de Lausanne
Faculté de biologie et de médecine
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Postdoctoral Position in Metabolism

<u>Keywords</u>: uridine, diet, cancer metabolism, immunometabolism, mouse models

The group of Prof. Alexis Jourdain at the University of Lausanne invites applications for a **postdoc position**. We are a dynamic team of international researchers composed of 3 postdocs, 3 PhD students, 1 master student and 2 technicians. The expertise present at the Department of Immunobiology and the University of Lausanne, as well as our ongoing collaborations with laboratories at the University of Geneva, CHUV and EPFL, offers an ideal place for a postdoc to thrive. The spoken language in the team is English.

This *in vivo* project, funded by the Swiss Cancer League, directly builds on our recent publication on the role of uridine in physiology and cancer (Skinner *et al.*, *Nature Metabolism* 2023; see also the accompanying paper by Nwosu *et al.*, *Nature* 2023). We discovered that uridine and RNA can support glycolysis when glucose is scarce. Uridine is highly abundant in our diet and is the most prevalent nucleoside in circulation, as well as in the tumor microenvironment, where glucose is often limited (see our recent review by Strefeler *et al.*, *Trends in Endocrinology and Metabolism* 2024). Certain cancers, such as melanoma, glioma, and pancreatic cancer, depend on uridine for development, making uridine catabolism an attractive pharmacological target in cancer metabolism.

We have recently generated two knockout mouse models with partial impairment in uridine catabolism and identified inhibitors of uridine catabolism in cell culture. This project aims to:
• Cross and characterize these mouse models in terms of physiology, in cancer development and anti-cancer immunity *in vivo*.
• Further evaluate the inhibitors *in vitro* and as potential cancer treatments *in vivo*.

Further information can be found on our https://www.jourdainlab.org

Your qualifications
- Experience working with mouse models
- Self-motivated, enthusiastic for science, determination are a must
- High communication skills for teamwork
- Ph.D. in a relevant discipline, e.g. metabolism, cancer
- At least one original 1st author manuscript published or close to publication (incl. in BioRxiv)
- Strong spoken and written competency in English (French is not necessary)

Apply here before March 1st 2025

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