

Postdoc in Computational Biology

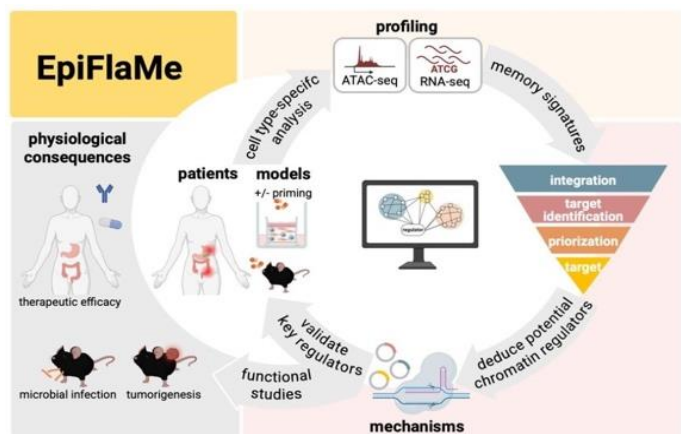
Leading the consortium EpiFlaMe

(Memory in Epithelial Cells - Organ Specificity and Cancer)

The group: The candidate will be part of the Computational Systems Biology group at the University of Salzburg, which is headed by Nikolaus Fortelny (<https://plus.ac.at/fortelny>). The group is focused on integrating single-cell/spatial multi-omics data with biological knowledge using AI/ML and other computational approaches in cancer and immunology research. We focus on approaches that produce robust, reliable, and ideally interpretable results.

The project: EpiFlaMe (Memory in Epithelial Cells - Organ Specificity and Cancer: <https://plus.ac.at/epiflame>) is a large consortium of seven research groups dedicated to understanding inflammatory memory in epithelia. The postdoc will be supported by a bioinformatics technician to coordinate and perform integrative bioinformatic data analysis of multi-omics profiles generated by these various groups, focusing on producing a consortium flag-ship publication (similar to [Fortelny et al., Nature Immunology, 2024](#)). The project focuses on understanding epithelial inflammatory memory and its relationship with cancer development. Using multi-omics profiling, innovative organoid cell cultures and in-vivo models the consortium will create the first systematic molecular map of inflammatory memory in epithelial cells across multiple organs. The goal of the EpiFlaMe research program is to lay the foundation for future therapies that can treat chronic inflammatory diseases and help prevent tumor formation in an organ-specific way.

The place: The city of Salzburg has ample natural and cultural attractions as well as fast connections to Vienna and Munich. It is surrounded by beautiful lakes and mountains, with various opportunities for recreational and sports activities. The university has 18 000 students, and a highly collaborative research environment in both biomedical and computational sciences.



Qualifications:

- PhD in biology, bioinformatics, biotechnology, computer science, statistics, physics, or similar
- Excellent scientific thinking and communication, high level of motivation and drive
- Programming (R/python) and other quantitative skills (statistics, AI/ML, network biology,...)
- Experience with (multi-)omics integrative data analysis, single-cell / spatial data, and/or CRISPR screens
- An understanding of and interest in immunology
- Excellent English and communication skills, especially communication with “wet-lab” biologists

Details:

- Start date: as soon as possible
- Duration: end of 2029 (project may then be prolonged for 4 years)
- Salary and work hours according to Austrian funding regulations
- Place of work: Salzburg, Austria

Our offer:

- Experience in coordinating a large research consortium focused on how immunology drives cancer
- Cutting-edge academic environment (<https://scholar.google.at/citations?user=IHjaggkAAAAJ>)
- Being part of an international, interdisciplinary, and fun team and consortium
- Opportunities for self-growth through courses for hard and soft skills
- Participation in conferences and project meetings
- Excellent social benefits of working in Austria (holidays, health insurance, ...)
- Environment that values a healthy work / life balance

Application:

<https://survey.plus.ac.at/index.php/282137>

Deadline:

None – we hire on a rolling basis.

We look forward to hearing from you!