

Ries lab

Postdoc: development of a novel MINFLUX microscope

The Ries lab is developing super-resolution microscopy methods for structural cell biology. In this project we will develop a fast, simple, and robust 3D and multi-color MINFLUX microscope with highest performance as open source.

About the position/ the research project

Access to MINFLUX microscopy is limited by the cost of commercial and the difficulty of building custom instruments. We recently developed an excitation module for MINFLUX that will substantially reduce the complexity and cost of a custom microscope (Deguchi & Ries, *bioRxiv* 2023, <https://doi.org/10.1101/2023.10.31.564945>). In this project we will develop this idea into a prototype and then into a stable open-source microscope for the community.

You will work closely together with an electrical engineer who will be developing the instrument control software and electronics, and you will be part of a laboratory with long-standing microscope development experience.

Candidates

We are looking for a talented, highly motivated postdoctoral scientist who is excited to develop a high-end microscope that will be useful for biological discovery. You should hold a PhD degree in physics or engineering and should have a strong background in optics and developing complex microscope hardware. Experience building scanning microscopes (STED, confocal) and in programming (Python, FPGA) is beneficial.

Training and supervision will be provided throughout the project, but we also expect a high level of drive and independence. Excellent spoken and written English skills are required.

Application

Please send your documents to jonas.ries@univie.ac.at and include a concise description of research experience, a list of published articles and contact details for three references.

Interviews will be held on a rolling basis and as soon as a suitable candidate is found, the position will be filled. The position is initially funded for a period of three years.

Contact

For details in the project contact please contact: Jonas Ries (jonas.ries@univie.ac.at). Further information about the Ries lab at:

- <https://www.maxperutzlabs.ac.at/research/research-groups/ries>
- <https://rieslab.de>

About the Max Perutz Labs

The successful applicant will work in a stimulating scientific environment: [Department for Structural and Computational Biology at the Max Perutz Labs](#), a research institute established by the University of Vienna and the Medical University of Vienna. 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 44 research groups, involving around 400 scientists and staff from more than 50 nations.