

Ries lab

Postdoc for super-resolution microscopy of muscle cells

The Ries lab is developing super-resolution microscopy methods for structural cell biology. As part of an international team in an HFSP-funded project, we will use superresolution microscopy to study the structure and assembly process of z-discs and are looking for a Postdoctoral Researcher with a cell biology background.

About the position/ the research project

The overall aim of the project is to investigate how a highly ordered sarcomeric Z-disc structure arises from disordered Z-bodies. The collaborative team will combine expertise in structural biology and modelling (Djinovic, EMBL Grenoble, Oda, University of Tokyo), advanced imaging (Ries, University of Vienna) and cardiovascular development and disease (Hinson, The Jackson Laboratory) and adopt a multifaceted and multiscale approach to tackle the central questions on sarcomere cytoskeleton assembly in biogenesis at the molecular and structural level. You will use advanced super-resolution microscopy including MINFLUX and automated multi-color 3D SMLM to a) measure the dynamics of essential components and investigate when during maturation the random diffusion is frozen out and permanent interactions and thus order are established, and b) image cytoskeletal components at different time points during sarcomere biogenesis to directly observe the emergence of order.

Candidates

We are looking for a talented, highly motivated postdoctoral scientist who shares our enthusiasm for pushing the limits of microscopy for biological discovery. You should hold a PhD degree in biology and should have experience in cell and molecular biology techniques and fluorescence microscopy. Experience in super-resolution microscopy and advanced data analysis 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@maxperutzlabs.ac.at and include a concise description of research experience, a list of published articles and contact details for three references, of which one should be your PhD supervisor.

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 funded for an initial period of three years, with the possibility of extension.

Contact

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

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

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About the Max Perutz Labs

The successful applicant will work in a stimulating scientific environment: <u>Department for Structural</u> <u>and Computational Biology at the Max Perutz Labs</u>, 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 <u>Vienna BioCenter</u>, one of Europe's hotspots for Life Sciences, and host 44 research groups, involving around 400 scientists and staff from more than 40 nations.



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