MAX PERUTZ LABS VIENNA

Djinovic lab

Postdoctoral Position

About the Djinovic lab

The Djinovic lab is interested in the molecular mechanisms underlying the architecture and assembly of the striated muscle sarcomeres, in particular Z-discs. We use an integrative structural biology approach combining biophysical, biochemical and high-resolution structural studies (macromolecular crystallography being the main technique), combined with small-angle scattering, electron microscopy, and complementary approaches as NMR and chemical cross-linking mass-spectrometry.

About the position

Postdoctoral position in structural biology of Comammox in Vienna
For 120 years, microbiologists had strongly assumed that nitrification must be performed by two distinct groups of microorganisms ('nitrifiers') in cooperation: the ammonia oxidizers and the nitrite oxidizers, respectively. This scientific dogma broke in 2016, when 'complete ammonia oxidizers' were discovered (1). In collaboration with the research lab of Daims/Wagner that discovered the Comammox bacterium, the Djinovic lab in Vienna plans to structurally and biochemically characterize selected enzymes of the Comammox, to decipher the catalytic mechanism and identify the structural determinants of the substrate affinity and specificity.

Job Description: Active participation in research, teaching and administration. This includes:

- Involvement in a research project on the structural and biochemical characterization of selected enzymes from Comammox and other nitrifying microorganisms
- Publications and presentations
- Involvement in project applications for third-party funding
- Involvement in public outreach
- Teaching of courses as defined by the collective agreement
- Supervision of trainees and students

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Candidates

The successful candidate should hold a PhD degree in Biology, Molecular Biology, Structural Biology, Biochemistry, or relevant fields. Strong experience in molecular cloning, expression, and purification of protein complexes is essential. Prior knowledge of crystallography and/or single-particle electron microscopy is needed. In addition, we expect the successful candidate to have excellent communication and organizational skills, the capacity to interact with other researchers, experience in working on collaborative research projects, publications in international scientific journals, and international presentation experience. Excellent team-working ability is needed.

Application

- Letter of motivation
- Academic curriculum vitae
- List of publications, a list of courses and a list of talks given
- Contact details of at least 2 persons who could provide a letter of reference

Send your documents to: jobcenter@univie.ac.at **indicating the reference number 13475.**

Duration of employment: 3 years

Deadline of application: April 15, 2023

1. Daims, H., Lebedeva, E. V., Pjevac, P., Han, P., Herbold, C., Albertsen, M., Jehmlich, N., Palatinszky, M., Vierheilig, J., Bulaev, A., Kirkegaard, R. H., Von Bergen, M., Rattei, T., Bendinger, B., Nielsen, P. H., and Wagner, M. (2015) Complete nitrification by Nitrospira bacteria. *Nature* **528**, 504-509; 10.1038/nature16461

Contact

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About the Max Perutz Labs

The Max Perutz Labs are 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 Vienna BioCenter, one of Europe's hotspots for the Life Sciences, and host 45 research groups, involving around 400 scientists and staff from 50 nations.

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