

Cryo-electron microscopy expert



Location: Grenoble, France

Staff Category: Senior officer/Scientific service and support

Contract Duration: 3 years (renewable for up to 9 years)

Grading: 5-7 depending on experience and qualifications

Closing Date: 10th October 2022

Reference Number: GR00189

Job Description

We wish to recruit an experienced and motivated cryo-electron microscopy (cryo-EM) expert to participate in running the state-of-the-art cryo-EM facility for structural biology on the European Photon and Neutron (EPN) Campus in Grenoble and to support users of the EMBL Grenoble in-house cryo-EM platform, engage in methods and instrumentation development. EMBL is a member of the Partnership for Structural Biology (PSB), together with the European Synchrotron Radiation Facility (ESRF), the Institut Laue-Langevin (ILL) and the Institut de Biologie Structurale (IBS), whose complementary and integrated facilities provide a very rich environment for structural biologists. The Campus EM instrumentation pool currently includes a Titan Krios (CM01) with K3 detector within the ESRF, complemented by Glacios/K2 (IBS EM platform) and Glacios/Falcon 4 with Selectris-X energy filter and T12 at EMBL Grenoble (in-house cryo-EM platform). The CM01 is run by the PSB and is open for peer-reviewed external user access mainly for high-resolution data collection for 3D single-particle reconstruction. A second high-end microscope is planned for installation in 2023. Cryo-electron tomography is expected to be increasingly used in the future.

Your role

The tasks of the successful candidate include but are not limited to:

- participate in the running of the inter-institutional PSB cryo-EM facility CM01 installed at the ESRF as local contact, helping external users in data collection and preliminary data analysis
- in synergy with in-house cryo-EM platform manager, participate in running the EMBL Grenoble cryo-EM facility
- introduce and train in-house users to cryo-EM technologies and auxiliary equipment, including assistance and troubleshooting in sample preparation and introduction to data processing.
- co-organise practical training and workshops in negative stain and cryo-EM for internal, PSB and external users and keep up-to-date processing software and hardware in collaboration with local EMBL IT staff.
- implement and/or develop novel methods in the broader area of electron microscopy (e.g. automation of grid preparation or image processing methods) in collaboration with engineers and scientists at EMBL Grenoble and EMBL Heidelberg to keep the facility internationally competitive with state-of-the-art services, technology, and infrastructure
- contribute expertise to collaborate in in-house structural biology research projects with EMBL Grenoble group and team leaders by collecting, evaluating and processing data for users carrying out structural biology projects in single-particle analysis and in the future tomography.
- liaise with the electron microscopists at EMBL Heidelberg, including at the new Imaging Center, and on the EPN Campus in Grenoble.
- travel and support data collection offsite

You have

- PhD degree in the physical or biological sciences, physics, engineering or related disciplines
- Extensive experience in cryo-electron microscopy/tomography (including sample handling, data collection and image processing) as applied to structural biology
- Strong motivation and ability to support, train, and interact effectively with team members and users
- Strong motivation and ability to support to engage in innovative methods and technological developments

- Strong motivation and ability to support, train, and interact effectively with team members and users in an international research environment together with scientists from collaborating EPN Campus institutes
- Excellent communication and organisation skills.
- Fluency in English

You might also have

Previous experience in user support or cryoEM methods and instrumentation development will be an advantage. Knowledge of state-of-the-art cryo-tomography would be a bonus. Fluency in French or other European languages would be an advantage.

Why join us

The European Molecular Biology Laboratory (EMBL) is one of the highest-ranked scientific research organisations in the world. The Headquarters Laboratory is located in Heidelberg (Germany), with additional sites in Grenoble (France), Hamburg (Germany), Hinxton (UK), Barcelona (Spain) and Rome (Italy).

EMBL is an inclusive, equal opportunity employer offering attractive conditions and benefits appropriate to an international research organisation with a very collegial and family-friendly working environment. The remuneration package comprises a competitive salary, a comprehensive pension scheme, medical, educational and other social benefits, as well as financial support for relocation and installation, including your family.

EMBL is a signatory of DORA. Find out how we implement best practices in research assessment in our recruitment processes [here](#).

What else you need to know

We are Europe's flagship research laboratory for the life sciences – an intergovernmental organisation performing scientific research in disciplines including molecular biology, physics, chemistry and computer science. We are an international, innovative and interdisciplinary laboratory with more than 1900 employees from many nations, operating across six sites, in Heidelberg (HQ), Barcelona, Hinxton near Cambridge, Hamburg, Grenoble and Rome.

Our mission is to offer vital services in training scientists, students and visitors at all levels; to develop new instruments and methods in the life sciences and actively engage in technology transfer activities, and integrate European life science research.

Please note that appointments on fixed-term contracts can be renewed, depending on circumstances at the time of the review.

The initial contract is for 3 years with a possibility of renewal for up to 9 years.

Please compile an application package containing:

- Letter of interest
- Your CV
- Contact details for three references

Please apply online through: www.embl.org/jobs

Interviews are planned for after the 10th of October 2022.

Prospective start date: early 2023.

Additional Information

Informal inquiries should be sent to Kristina Djinojic Carugo (kristina.djinovic@embl.org).