

# AIRC Postdoctoral Fellowships in Structural Biology at ELETTRA (# of positions: 2)

Deadline: 19 September 2023 Ref: DA/23/22

## Background

The Structural Biology Laboratory applies molecular and structural biology tools to the study of basic genetic processes within the cell and to characterize some of the proteins involved. We use protein crystallography and cryo-electron microscopy to determine the atomic structure of these proteins, as well as biochemical, biophysical and cellular approaches to understand how they work. In-house research focuses on DNA replication and DNA repair, underpinning cellular processes with important consequences, such as cell proliferation and genome stability, with medical implications in the field of molecular oncology and genetic diseases. See http://www.elettra.trieste.it/labs/structural-biology for more information.

### **Beamline/Activity/Project description**

Two positions funded through a grant from the Fondazione AIRC (Associazione Italiana per la Ricerca sul cancro) are available in the Structural Biology Laboratory. The successful candidates will be involved in functional and structural studies of RecQ4 and other helicases involved in DNA replication and repair. In particular, they will be responsible for protein purification, biophysical, biochemical and cellular analysis, crystallization, structural studies with macromolecular crystallography, small-angle X-ray scattering and cryo-electron microscopy. The selected candidates will work in close collaboration with the other members of the laboratory and with the beamline scientists of Elettra. They will have to work autonomously in running the research project. Finally, they will have to participate and present their results to international conferences, meetings or workshops, as well as prepare and submit articles to peer-reviewed scientific journals.

### Job description

A Ph.D. (or three years of equivalent research experience) in biochemistry, chemistry, biology, biophysics or related disciplines is required. Hands-on experience either in molecular biology (recombinant protein expression and protein purification and characterization) or in structural biology techniques (crystallization, macromolecular crystallography or cryo-electron microscopy data collection and analysis) is essential. A knowledge of the literature on helicases, DNA replication and repair, molecular oncology, chromosome stability and non-canonical nucleic acid structures will be considered a plus.

Good time management skills and ability to prioritize, interact with collaborators, tutor younger scientists and work as part of a multi-disciplinary team are expected.

Excellent oral and written communication skills in English are essential.

### Qualifications

The appointment will be a fixed-termcontract of initial 12 months, renewable upon agreement by the parties. The salary will be commensurate with previous experience and qualifications of the candidate.

Applications should include a full curriculum vitae, the names and contact information (including electronic mail) of at least two persons who have agreed to provide references.

The deadline for the submission of the application is September 19, 2023.

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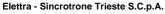
In accordance with the provisions of article 21 of the Italian legislative decree no. 39/2013 and in conjunction with article 53 (subsection16ter) of Italian legislative decree no. 165/2001, employees or former employees of any Italian Public Entity who have exercised authority over Elettra Sincrotrone Trieste S.C.p.A. or have negotiated with Elettra - Sincrotrone Trieste S.C.p.A. within the last three years will be excluded from the present selection procedure.We thank all applicants in advance.

For more information, please contact Silvia Caterina Elvira Onesti (email: silvia.onesti@elettra.eu).

To apply for this position please visit the following link: https://www.elettra.trieste.it/it/about/careers/working-withus.html?id=3321

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