

PREDOCTORAL CONTRACT IN STRUCTURAL BIOLOGY

A 3-year predoctoral contract is available in our research group to study the **Molecular Basis of Bacterial Immunity** (project funded by the Agencia Estatal de Investigación, PID2022-136750NB-I00, Rafael Molina Monterrubio) in our laboratory at the [Crystallography & Structural Biology Department](#) located at the [Institute of Physical Chemistry "Blas Cabrera"](#), CSIC in Madrid, Spain.

Project: We study the arms race between bacteria and their phage foes focusing on the molecular basis of prokaryotic anti-viral defence systems and viral countermeasures. To address it, we use a combination of bioinformatics, molecular biology, biochemistry and structural biology techniques. Understanding the dynamics of the interactions between these microorganisms has profound implications for phage-based therapies and the development of new biotechnological tools.

Publications related:

- Molina, R*. *et al.* (2022) [Nucleic Acids Research, 50, 11199-11213](#)
- Molina, R*. *et al.* (2021) [Nucleic Acids Research, 49, 12577-12590](#)
- Molina, R. *et al.* (2020) [Current Opinion in Structural Biology, 65, 119-129](#)
- Molina, R. *et al.* (2019) [Nature Communications, 10, 4302](#)

Further details can be found at our group website ([follow this link](#))

Requirements: Candidates should hold a Master degree in Biotechnology, Biochemistry, Biology, Chemistry or related fields and previous experience in Biochemistry and Molecular Biology. We are looking for a highly motivated and curious candidate, fluent in English and with good quantitative skills. A live or remote interview will be carried out with interested candidates.

We offer: the opportunity to join a friendly, highly collaborative department, in an excellent group environment to pursue a PhD degree in Structural Biology. Opportunity to participate in international collaborations. The expected starting date is November-December 2023. The position will be open until we find a suitable individual.

Contact: Interested applicants should send their **curriculum vitae** and a **motivation letter** to Rafael Molina (rmolina@iqf.csic.es). I will be happy to discuss with you our expectations and provide further details.