

**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](https://www.xtal.iqf.csic.es/) located at the [Institute of Physical Chemistry “Blas Cabrera”](https://www.iqf.csic.es/en/), 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](https://doi.org/10.1093/nar/gkac923)
* Molina, R\*. *et al.* (2021) [***Nucleic Acids Research***, 49, 12577-12590](https://doi.org/10.1093/nar/gkab1130)
* Molina, R. et al. (2020) [***Current Opinion in Structural Biology***, 65, 119-129](https://doi.org/10.1016/j.sbi.2020.06.010)
* Molina, R. et al. (2019) [***Nature Communications***, 10, 4302](https://doi.org/10.1038/s41467-019-12244-z)

Further details can be found at our group website ([follow this link](https://rmolina588.wixsite.com/rafael-molina-resear))

**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@iqfr.csic.es). I will be happy to discuss with you our expectations and provide further details.