

Ph.D. position in Microbial Glycobiology
Structural Glycobiology Laboratory
Institute of Molecular Biology of Barcelona
Spanish National Research Council

A **4 years Ph.D. position** funded by the Spanish Ministry of Science and Innovation is available at the Structural Glycobiology laboratory at the Department of Structural and Molecular Biology, Institute of Molecular Biology of Barcelona (IBMB), Spanish National Research Council (CSIC), Spain. Please, see <https://www.ibmb.csic.es/>. The IBMB is located in the Barcelona Science Park (PCB), providing an outstanding scientific and multidisciplinary environment and state-of-the-art facilities. The Structural Glycobiology laboratory investigate the structural enzymology and chemical biology of proteins involved in the biosynthesis, degradation and modification of glycans. Please see <https://sites.google.com/site/guerinlab>.

The PhD project will focus on the study of the **structural determinants, the modulation of substrate specificity and catalysis of enzymes involved in bacterial pathogens capsule biosynthesis and remodeling**. The results of this work will certainly have implications not only in fundamental aspects of enzymology and the comprehension of some key pathogenic pathways, but also in the application of this knowledge in areas including biomedicine, bioengineering and biotechnology. To this end the Ph.D. candidate will use a multidisciplinary approach including X-ray crystallography, small angle X-ray scattering, cryo electron microscopy, protein biophysics, protein biochemistry and molecular biology, to elucidate mechanistic aspects of these processes at the molecular level.

We are seeking an outstanding and highly motivated candidate, with a Master Degree in biology/biochemistry/molecular biology/structural biology/biotechnology/chemistry/pharmacy or related fields, and a genuine interest in microbial glycobiology, bacterial pathogenesis, enzymology, and/or structural biology. Candidates should submit a cover letter, a CV with BA/BSc qualifications and the e-mail addresses of potential references, to **Prof. Marcelo Guerin** (IBMB-CSIC) at mrcguerin@ibmb.csic.es, **before September 30th 2023**.

Recent selected publications: Cifuentes et al. **Nat. Chem. Biol.** 19:865-877 (2023); Anso et al. **Nat. Commun.** 14:1765 (2023); Trastoy et al. **Nat. Commun.** 14:1705 (2023); García-Alija et al. **Nat. Commun.** 13:1137 (2022); Anso et al. **Sci. Adv.** 7:eabj4565 (2021); Trastoy et al. **Nat. Commun.** 11:4844 (2020); Trastoy et al. **Nat. Commun.** 11:899 (2020); Klontz et al. **ACS Cent. Sci.** 5:524-538 (2019); Trastoy et al. **Nat. Commun.** 9:1874 (2018).