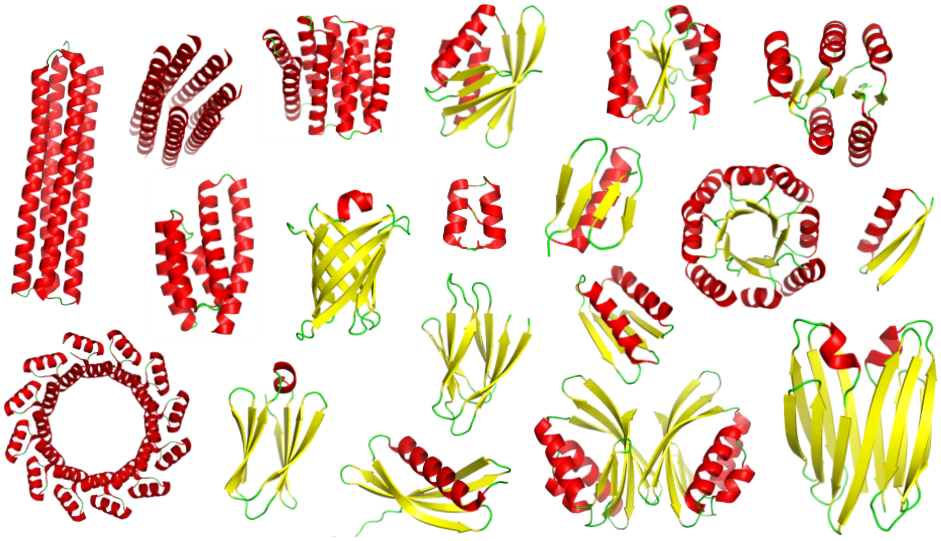
Postdoctoral position on design and testing of ligand-binding proteins

A postdoctoral position for 2 years is available at the Protein Design and Modeling lab from the **Molecular Biology Institute of Barcelona (IBMB)**, Spain. The institute is located in the Barcelona Science Park (PCB), a major hub for biological research and biotech companies, and affiliated to the Spanish National Research Council (**CSIC**).

We specialize in **de novo protein design**, aiming to create proteins from scratch with tailor-made structures and functions—overcoming the inherent limitations of natural proteins. Our research combines **computational protein design** with **biochemical, biophysical, and structural biology techniques** to develop and characterize novel proteins that address key challenges in biotechnology and medicine.



This position is funded by the **Spanish Ministry of Science and Innovation** and focuses on the **design of hyperstable ligand-binding protein scaffolds** for diverse applications, including small molecule recognition, enzyme catalysis, and protein-protein interactions. These scaffolds will be explored for **biosensing** and **protein-based therapeutic** applications. As a postdoctoral researcher, you will lead efforts in both **computational design** and **experimental characterization** of novel proteins.

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Key Responsibilities:

- Recombinant expression and purification of designed proteins.
- Characterize the stability, ligand-binding properties and structure of the designed proteins.
- Actively contribute to optimize wet-lab procedures for protein characterization.
- Provide guidance to other group members in wet-lab activities.
- Contribute to other lab projects.
- Molecular modelling and design of ligand-binding proteins.

Qualifications and Skills:

Required:

- PhD in Biochemistry, Biophysics, Structural Biology, Biotechnology, or related field.
- Hands-on experience in recombinant protein expression and purification.
- Hands-on experience in biophysical techniques for analyzing molecular interactions.
- Experience in at least one structural biology method (e.g., X-ray crystallography or NMR).
- Strong ability to work independently and collaboratively in a multidisciplinary environment.
- Highly motivated, enthusiastic and collaborative person.
- Attention to detail and accuracy.
- Excellent organizational and communication skills in English (oral and written).
- Willingness to travel for short-term visits to collaborators.
- Familiarity with the Linux command line environment.

Desirable:

- Experience in molecular modeling.
- Experience in high-throughput screening techniques for protein-ligand interactions.
- Familiarity with python programming.

Starting date: September-November 2025, for 2 years with possible extension depending on funding.

Application: Please send your CV, a motivation letter, and contact information for three references, to: Enrique Marcos (embcri@ibmb.csic.es)

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