

2-year postdoctoral position in AI based Protein design at the Spanish Research Council (CSIC), Madrid, Spain

We are seeking a motivated scientist to join our team to use **artificial intelligence (AI) based methods to design novel proteins with therapeutic potential** as well as to **experimentally validate and characterize the designed proteins**. The project is funded by Worldwide Cancer Research and aims to target regulatory sites in a well-known cancer target, known to efficiently and selectively inhibit cancer cell invasion.

The candidate will be based at the **Margarita Salas Center for Biological Research (CIB-CSIC)** in Madrid. She/He will work in a multidisciplinary and international team with experience in structural biology of the target (Lietha Lab, CIB-CSIC, Spain) [1], AI based protein design (Magnus Bauer at Baker Lab, University of Washington, USA) [2] and relevant cancer models (Frame Lab, Cancer Research UK Edinburgh Centre) [3]. The candidate should have experience in computational structural biology and ideally also with experimental biochemistry and/or structural biology techniques.

We offer:

- Working on an exciting project with therapeutic potential, using state of the art computational and experiential approaches
- Access to high-end computational, biochemistry and structural biology infrastructure
- A vibrant, multi-disciplinary and international working environment
- The opportunity to be part of a multidisciplinary Research Centre of the Spanish Research Council that successfully combines basic and applied research
- Situated in one of Europe's cultural capitals

To express your interest and send your CV or to find out more, please **contact Daniel Lietha (daniel.lietha@cib.csic.es)**. All enquiries and applications will be treated confidentially.

References:

1. Acebrón I, Righetto RD, Schoenherr C, de Buhr S, Redondo P, Culley J, Rodríguez CF, Daday C, Biyani N, Llorca O, Byron A, Chami M, Gräter F, Boskovic J, Frame MC, Stahlberg H, Lietha D. Structural basis of Focal Adhesion Kinase activation on lipid membranes. *EMBO J* 39, e104743 (2020).
2. Watson JL, Juergens D, Bennett NR, Trippe BL, Yim J, Eisenach HE, Ahern W, Borst AJ, Ragotte RJ, Milles LF, Wicky BIM, Hanikel N, Pellock SJ, Courbet A, Sheffler W, Wang J, Venkatesh P, Sappington I, Torres SV, Lauko A, De Bortoli V, Mathieu E, Ovchinnikov S, Barzilay R, Jaakkola TS, DiMaio F, Baek M, Baker D. De novo design of protein structure and function with RFdiffusion. *Nature* 620, 1089-1100 (2023).
3. M, Dawson JC, Avalle L, Douglas AT, Mort RL, Byron A, Carragher NO, Pollard SM, Brunton VG, Frame MC. An ILK/STAT3 pathway controls glioblastoma stem cell plasticity. *Dev Cell*. 2024 Dec 16;59(24):3197-3212