OFFER- **Research Scientists in Artificial Intelligence applied to cryo electron tomography (Postdoc or Predoc level)**

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The Instituto Biofisika (IBF; www.biofisika.org) is a joint research centre of the University of the Basque Country (UPV/EHU) and the Spanish National Research Council (CSIC). The centre focuses on fundamental and translational biophysics research and offers a highly collaborative culture.

The Instituto Biofisika (CSIC-UPV/EHU), located at the Leioa Campus of the University of the Basque Country, is currently accepting applications for research scientist positions at both the postdoctoral and predoctoral levels. Successful candidates will join the Laboratory for Numerical Methods of Cryo Electron Tomography (cryoET), led by Dr. Daniel Castaño Díez. The group is dedicated to advancing computational methodologies for the automated analysis and interpretation of 3D cellular imagery, primarily through its in-house software platform *Dynamo* (https://dynamo-em.org). We aim now at extending this tool through the integration of novel deep learning techniques for the identification and characterization of small, flexible proteins within their natural surroundings. The successful applicant will contribute to the development of these new methodologies, as well as to the ongoing development and maintenance of the software. Additionally, they will be involved in the analysis of cryoET datasets provided by external collaborators.

Ideal candidates for these positions must hold an official degree in Mathematics, Computer Science, Engineering or similar, and has a strong background in Matlab. An interest in carrying research in Life Sciences is assumed. Necessary qualifications are:

- Experience in Deep Learning and/or other methods from Artificial Intelligence.
- Solid background in numerical mathematics, including optimization and heuristic optimization methods.
- Proficiency in software prototyping and production. Good command of MATLAB, Python, C++ and/or CUDA is expected.

Further desirable qualifications of the successful candidate include:

- Experience in Image Processing for Electron Microscopy.
- Experience in Image Processing for Light Microscopy.
- Experience in Molecular Dynamics Simulations.

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Positions are immediately available with a flexible incorporation date aiming at an effective start date in Fall 2025 and with additional third-party funding secured till August 2029. Salaries will be aligned with the candidate's skills, qualifications, and experience, within the official salary ranges established by the Spanish Research Council (CSIC): €27,000–€42,000 gross per year for BSc/MSc holders, and €38,000–€53,000 for PhD holders. Applications in a single pdf should be directed to daniel.castano@csic.es including:

- Curriculum Vitae **with academic record**.
- A motivation letter.
- Two reference letters or contact email of referees.

Deadline: 21st May, 2025.

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