



Fundación Biofísica Bizkaia  
Biofisika Bizkaia Fundazioa

## FUNDACIÓN BIOFÍSICA BIZKAIA / BIOFISIKA BIZKAIA FUNDAZIOA

### OFFER – Postdoctoral Position in “Neutron Scattering & Coacervation at membranes”

Publication date: December 24, 2021

The IBF is a joint research centre of the University of the Basque Country (UPV/EHU) and the Spanish National Research Council (CSIC). In close partnership with the Fundación Biofísica Bizkaia (FBB), the centre focuses on fundamental and translational biophysics research and offers a highly collaborative culture. Accredited as a Basque Excellence Research Centre (BERC), the institute provides outstanding shared facilities for advanced biophysical and structural biology approaches in a new research building in the main Leioa campus of the University of the Basque Country.

#### Description of the project and position offered

A postdoctoral position is available at Instituto Biofisika Basque Centre for Biophysics under the supervision of Prof. Marité Cárdenas and Dr. Adai Colom (<https://biofisika.org>). The position is fully funded and has a duration of 2 years.

Applicants must have a **PhD degree in Physical Chemistry or Biophysics**. Expertise in neutron scattering, neutron reflection, fluorescence microscopy or atomic force microscopy will be valued as well as hand on experience on lipid – protein work. Applicants should have a good academic record, good communication skills, a strong passion and commitment to science, and work well within a group. Knowledge of written and spoken English is also needed.

Neutron scattering is a technique that seeks to understand the properties of matter at a structural and dynamic level. Neutron scattering techniques are only available in large facilities, as they can only be produced in nuclear reactors or spallation sources. The European Spallation Source (ESS) is currently being built in Lund, Sweden, and the Basque country has contributed significantly by building key components. At the end of the construction phase, it is very important that there are trained users capable of using the full potential of the ESS to advance in science and technology in the Basque country. Are you the next ambassador for the use of neutron scattering in the Basque Country?

Fast-Atomic Force Microscopy (Fast-AFM) offers the unique experience to observe in real time and molecule resolution lipid-protein interaction and measure their mechanical properties without any labeling. Fast-AFM is a perfect technic to combine with Neutron scattering providing a complement information. The open postdoc position will focus on studying coacervation at model biological membranes. We plan to study both liquid liquid phase separation in protein systems as well as natural deep eutectic solvents. Both of which are processes that lead to a third liquid phase in biology, in which protein and metabolites exist in Molar concentrations. In this project we will apply a combination of techniques to structurally and mechanically characterise the bio-membranes in the presence of coacervates.



Fundación Biofísica Bizkaia  
Biofisika Bizkaia Fundazioa

It is recommended that applications are made as soon as possible as they will be considered upon arrival.

Applications must include:

1. a cover letter highlighting their interest in the position and the main research achievements.
2. curriculum vitae clearly stating the degree and master final qualifications as well as list of publications.
3. copies of PhD, Master and Bachelor diplomas
4. the name and contact address (e-mail) of at least one academic referee.

Incomplete applications will not be considered.

**Contact:** We are an equal opportunity employer committed to diversity. Please submit all the documentation through the Biofisika website contact page (<http://biofisika.org/contact/>), adding the following subject: [*Job Application: 92\_MC\_Coacervation*].

**Deadline: 15 March, 2022**