
WEBINAR DECEMBER 1, 2025 (17:00H, CET)

Prof. Beatriz Herguedas

Instituto de Biocomputación y Física de Sistemas Complejos
Universidad de Zaragoza

Gating and Modulation in GluA4 AMPA Receptors: A Structural Perspective

The Google meet: meet.google.com/tfu-yeea-oer

Biography:

Beatriz Herguedas is an Associate Professor in the Department of Biochemistry and Molecular and Cell Biology at the University of Zaragoza, and a group leader at the BIFI Institute at the same university. She obtained her PhD at the University of Zaragoza in 2011, working on the crystal structure of electron-transfer proteins under the supervision of Milagros Medina and Marta Martínez. In 2011, she moved to the MRC Laboratory of Molecular Biology to work with Ingo Greger, where she began studying the structure of AMPA glutamate receptors. She determined the first cryo-electron microscopy structures of heteromeric AMPA receptors and their complexes with auxiliary subunits (Cais et al., *Cell Reports*, 2014; Herguedas et al., *Science*, 2016; Herguedas et al., *Science*, 2019; Herguedas et al., *Nature Communications*, 2022). She returned to Spain in 2019 as an Assistant Professor, and in 2020, she was awarded a Ramón y Cajal Fellowship, launching her group at BIFI the same year. In recent years she has focused on GluA4, an AMPA receptor with unique gating properties and distinct spatial and developmental expression patterns. Her group determined the cryo-EM structures of GluA4 and its complexes with auxiliary subunits and proposed the structural basis for the modulation of auxiliary proteins (Vega-Gutiérrez et al., *Nature Structural & Molecular Biology*, 2025). She collaborates with David Soto's group at University of Barcelona to analyse the functional properties of AMPA receptor complexes and with Ingo Greger's group to complete the structural landscape of the AMPA receptor interactome (Pokharna et al., *Nature*, 2023). She is the director of the Biochemistry Area at the BIFI Institute, member of the Spanish Biophysical Society and member of the Spanish Society for Biochemistry and Molecular Biology, where she serves on the admissions committee.



Sponsors:

