

CANDIDATE FOR A 'JUAN DE LA CIERVA' POSTDOCTORAL POSITION

Deciphering the immune landscape of stroke

Cerebrovascular Research team at IIBB-CSIC, IDIBAPS

Instituto de Investigaciones Biomédicas de Barcelona (IIBB), CSIC

The position will be for 3 years. Estimated starting date: January 2027

Summary of the project:

Our project explores innovative strategies to modulate myeloid cells with the goal of improving outcomes after cerebrovascular diseases in the aging brain. Stroke and related cerebrovascular events trigger complex immune responses that profoundly influence tissue damage and repair. In aged individuals, these immune reactions are often maladaptive, contributing to poor recovery. We aim to dissect and manipulate these processes by investigating how specific myeloid cell populations—both resident and circulating—can be redirected toward reparative functions. Using state-of-the-art immunophenotyping, transcriptomic profiling, and in vivo models of stroke in aged mice, we will characterize the immune landscape of brain-infiltrating leukocytes and identify key molecular pathways that drive detrimental or protective responses. Furthermore, we will test targeted interventions designed to shift the phenotype of circulating myeloid cells to promote neurovascular repair and functional recovery. This multidisciplinary project integrates neuroimmunology, aging biology, and translational neuroscience, providing a dynamic environment for innovative research and discovery.

Five selected publications of the host team:

- * Arbaizar-Rovirosa et al. (2025) *Aging Dis.* doi: 10.14336/AD.2025.1066.
- * Arbaizar-Rovirosa et al. (2023) *EMBO Mol. Med.* doi: 10.15252/emmm.202217175.
- * Gallizioli et al. (2020) *Cell Rep.* doi: 10.1016/j.celrep.2020.108291.
- * Otxoa-de-Amezaga et al. (2019) *Acta Neuropathol.* doi: 10.1007/s00401-018-1954-4
- * Brait et al., (2019) *Circ. Res.* doi: 10.1161/CIRCRESAHA.118.313818.

CANDIDATE profile:

We are seeking a highly motivated postdoctoral fellow to join our neuroimmunology research team. The project focuses on understanding immune mechanisms in the brain, particularly myeloid cell modulation in cerebrovascular disease. Background in immunology and experience with flow cytometry and/or single-cell RNA sequencing are highly desirable. Experience in mouse work and possession of an appropriate animal license are required.

Applicants eligible for the “Juan de la Cierva” 2025 call must have obtained their doctoral degree (date of defense and approval) between January 1, 2024, and December 31, 2025.

Websites: <https://www.aei.gob.es/convocatorias/buscador-convocatorias/ayudas-contratos-juan-cierva-2025>; <https://www.iibb.csic.es/en>

Candidates should send their CV, a motivation letter, and at least one reference letter or contact of two referees to the PI: Anna.planas@iibb.csic.es **BEFORE 3/12/2025**