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# Sandra Arroyo Urea

She studied Biochemistry at the University of Granada and a master's degree in Molecular Biomedicine at the Autonomous University of Madrid, orienting his career towards biomedicine. She began her research career with the TFG, achieving a publication in GLIA (2020) and continued with a fellowship at the Cajal Institute. She is currently finishing her doctoral thesis at the BIFI Institute on dopaminergic receptors, after a stay at the Francis Crick Institute, where she learned cryo-electron tomography.

## Researcher profile

She is an R1 researcher in Javier García Nafría's Signal Transduction and Membrane Protein Therapies group, where she is working on her PhD thesis. Her research focuses on the structural and functional study of the interaction between drugs and dopamine receptors, as well as their oligomerisation and functional impact. This work, which uses techniques such as protein purification, electron cryo-microscopy and cell culture assays, seeks to advance the understanding of these receptors and support the development of new therapies.

## Importance of her research

Dopamine receptors are key targets for treating diseases of the central nervous system, such as Parkinson's, schizophrenia and bipolar disorder. However, current drugs are poorly selective and can activate unwanted pathways, causing side effects. Understanding the structural and functional basis of selective ligands is crucial to develop more effective and targeted drugs. Recently, she published a study in Nature Communications (2024) describing a new site of selectivity at the dopamine 3 receptor, which could lead to the development of improved therapies.