

Guillermo Moreno-Sanz

I started my training in Neuroscience at the Complutense University of Madrid, investigating the relationship between the cannabinoid system and alcohol intake. Thanks to a Fulbright scholarship, I joined Dr. Daniele Piomelli's lab at the University of California, Irvine, where I finished my Ph.D. dissertation.

My doctoral research led to the discovery of a novel mechanism by which peripherally-produced anandamide, one of the main endocannabinoid ligands, controls the nociceptive input arising from the nerve endings before it reaches the spinal cord. Further, I characterized a new class of namely fatty-acid amidohydrolase (FAAH) inhibitors that, despite not being able to cross the blood-brain barrier, display potent analgesic effects in rodents.

My current research focuses on elucidating the biological mechanism underlying the extrusion of these compounds from the brain, orchestrated by the joint action of several efflux pumps. Also, I continue working on the validation of fatty-acid ethanolamide-degrading enzymes, FAAH and N-acyl ethanolamine acid amidase (NAAA), as relevant clinical targets for the pharmacological management of pain and inflammation.