SYNAPTIC PHARMACOLOGY LAB
JORDI ORTIZ

RESEARCH

RESEARCH INTERESTS

Basic knowledge of the biochemical targets for psychotropic drugs. This includes dopaminergic and other neurotransmitter receptors, transporters and enzymes affected by antipsychotics, drugs of abuse and treatments for dyskinesias.

STRATEGIC OBJECTIVES

To validate experimentally models of the synaptic mechanisms of action of psychotropic drugs and its utility to translate add-on medications to clinical settings.

MAIN RESEARCH LINES

Molecular interactions of dopamine D2 receptors, activation mechanisms, intracellular signalling and cross-talk.

LAB FEATURED PUBLICATIONS

Gil C, Dorca-Arévalo J, Blasi J. Calcium enhances binding of Clostridium perfringens epsilon toxin to sulfatide. BBABiomembranes, 2019, 1861:1, 161-169. Bruzzese A, Gil C, Dalton JAR, Giraldo J.

Structural insights into positive and negative allosteric regulation of a G protein-coupled receptor through protein-lipid interactions. Sci Rep. 2018 Mar 13;8(1):4456. Fuentes S, Carrasco J, Hatto A, Navarro J, Armario A, Monsonet M, Ortiz J, Nadal R. Sex-dependent impact of early-life stress and adult immobilization in the attribution of incentive salience in rats.

PLoS ONE,2018;13(1):e0190044. Gutiérrez-Sacristán A, Bravo A, Portero-Tresserra M, Valverde O, Armario A, Blanco-Gandía MC, Farré A, Fernández-Ibarrondo L, Fonseca F, Giraldo J, Leis A, Mané A, Mayer MA, Montagud-Romero S, Nadal R, Ortiz J, Pavon FJ, Perez E, Rodríguez-Arias M, Serrano A, Torrens M, Warnault V, Sanz F, FurlongLI.

Text mining and expert curation to develop a database on psychiatric diseases and their genes. Database – The Journal of Biological Databases and Curation, 2017; 1-9 Hoffmann HM, Crouzin N, Moreno E, Raivio N, Fuentes S, McCormick PJ, Ortiz J*, Vignes M (Jordi Ortiz y Michel Vignes declaran haber contribuido por igual a este artículo).

Long-lasting impairment of mGluR5-activated intracellular pathways in the striatum after withdrawal of cocaine self-administration. International Journal of Neuropsychopharmacology, 2017;20(1):72-82.

ACTIVE PROJECTS DURING 2016-20

Aproximación multidisciplinar a la complejidad farmacológica de las dianas de fármacos en trastornos neurológicos y psiquiátricos. Ministerio de Economía y Competitividad. SAF2017-87199-R. (2017 - 2021).

CoIPs: Jesús Giraldo Arjonilla y Jordi Ortiz de Pablo Investigación mediante métodos matemáticos, computacionales y bioquímicos del crosstalk entre los receptores mGlu5 y D2: Relevancia para el tratamiento de la esquizofrenia.Ministerio de Economía y Competitividad.

SAF2014-58396R. (2015 – 2017). CoIPs: Jesús Giraldo Arjonilla y Jordi Ortiz de Pablo CIBER Salud Mental (CIBERSAM), CB19/09/00029 http://www.cibersam.es/grupos/grupo-de-investigacion?id=23808 Instituto de Salud Carlos III Entidades participantes: Corporación Sanitaria Parc Taulí y Universidad Autónoma de Barcelona. Investigador responsable: Diego Palao Vidal