

Grup de Recerca:

Models animals de trastorns mentals i neurològics

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Línies de recerca:

1. Neurobiologia/neurogenètica de la por/ansietat en rosegadors
2. Neurobiologia/neurogenètica de la impulsivitat i l'esquizofrènia en rosegadors
3. Neurobiologia de la frustració en models animals i humans
4. Efectes neuro-comportamentals de tractaments d'estimulació infantil

Projectes actuals i recents:

“Genética de l'ansietat en rates genèticament heterogènies N/Nih i en rates Romanes consanguínies: expressió genètica diferencial en àrees "diana" del cervell (Genetics of anxiety in genetically heterogeneous N/Nih and inbred Roman rats: differential gene expression in target brain areas).” Fundació la Marató de TV3. 092630/1. 2009-2014 **P.I.: Albert Fernández Teruel.**

“Genética de la ansiedad en ratas heterogeneas. expresión génica en regiones cerebrales diana.” (PSI2009-10532). 2010-2012. **P.I.: Albert Fernández Teruel.**

“EUROPEAN RAT Tools for Functional Genomics.” EURATools (N. 019015). European Commission (FP6) 2006-2010. P.Is.: Timothy Aitman (London; General Coordinator) & **Albert Fernández Teruel (partner PI).**

“European large-scale functional genomics in the rat for translational research”. European Commission HEALTH-F4-2010-241504. EURATRANS. PI: Norbert Hübner (Berlin). Partner IP: **A. Fernandez-Teruel**, 2010-2014.

“Meccanismi neurobiologici coinvolti nella resilienza e nella vulnerabilità a stress e depressione” SARDINIA (Italy) Regional Government (Project code no. CRP-59842) 2012-2016. **PI.: Osvaldo Giorgi**

“Un modelo espontaneo de propension esquizofreniforme en ratas: estudios con la cepa RHA vs las RLA y las ratas heterogeneas NIH-HS.” : PSI2013-41872-P. PI: **Fernández Teruel A.** 2014-2017.

“Un modelo genético de síntomas negativos y cognitivos relevantes para la esquizofrenia: estudios con las cepas de ratas RHA vs RLA y las genéticamente heterogeneas NIH-HS.” ref. PSI2017-82257-P PI: **Fernández Teruel A.** 2018-2020.

Publicacions recents seleccionades:

Mont C, Hernandez Pilego P, Cañete T, Oliveras I, Río-Álamos C, Blázquez G, López-Aumatell R, Martínez-Membrives E, Tobeña A, Flint J, Fernández-Teruel A, Mott R. [Coping-Style Behavior Identified by a Survey of Parent-of-Origin Effects in the Rat. *G3 \(Bethesda\)*](#). 2018 Aug 22. pii: g3.200489.2018. doi: 10.1534/g3.118.200489. [Epub ahead of print]

Merchán A, Mora S, Gago B, Rodriguez-Ortega E, Fernández-Teruel A, Puga JL, Sánchez-Santed F, Moreno M, Flores P. [Excessive habit formation in schedule-induced polydipsia: Microstructural analysis of licking among rat strains and involvement of the orbitofrontal cortex. *Genes Brain Behav.*](#) 2018 Jun 7:e12489. doi: 10.1111/gbb.12489. [Epub ahead of print]

Fomsgaard L, Moreno JL, de la Fuente Revenga M, Brudek T, Adamsen D, Rio-Alamos C, Saunders J, Klein AB, Oliveras I, Cañete T, Blazquez G, Tobeña A, Fernandez-Teruel A, Gonzalez-Maeso J, Aznar S. [Differences in 5-HT2A and mGlu2 Receptor Expression Levels and Repressive Epigenetic Modifications at the 5-HT2A Promoter Region in the Roman Low- \(RLA-I\) and High- \(RHA-I\) Avoidance Rat Strains. *Mol Neurobiol.*](#) 2018 Mar;55(3):1998-2012. doi: 10.1007/s12035-017-0457-y.

Fernández-Teruel A, Tobeña A. [Do not bury thirty years of avoidance findings. *Mol Psychiatry.*](#) 2018 Mar;23(3):497-498. doi: 10.1038/mp.2017.209.

Oliveras I, Sánchez-González A, Sampedro-Viana D, Piludu MA, Río-Alamos C, Giorgi O, Corda MG, Aznar S, González-Maeso J, Gerbolés C, Blázquez G, Cañete T, Tobeña A, Fernández-Teruel A. [Differential effects of antipsychotic and propsychotic drugs on prepulse inhibition and locomotor activity in Roman high- \(RHA\) and low-avoidance \(RLA\) rats.](#) *Psychopharmacology (Berl)*. 2017 Mar;234(6):957-975. doi: 10.1007/s00213-017-4534-8.

Río-Álamos C, Oliveras I, Piludu MA, Gerbolés C, Cañete T, Blázquez G, Lope-Piedrafita S, Martínez-Membrives E, Torrubia R, Tobeña A, Fernández-Teruel A. [Neonatal handling enduringly decreases anxiety and stress responses and reduces hippocampus and amygdala volume in a genetic model of differential anxiety: Behavioral-volumetric associations in the Roman rat strains.](#) *Eur Neuropsychopharmacol*. 2017 Feb;27(2):146-158. doi: 10.1016/j.euroneuro.2016.12.003.

Hoekzema E, Barba-Müller E, Pozzobon C, Picado M, Lucco F, García-García D, Soliva JC, Tobeña A, Desco M, Crone EA, Ballesteros A, Carmona S, Vilarroya O. [Pregnancy leads to long-lasting changes in human brain structure.](#) *Nat Neurosci*. 2017 Feb;20(2):287-296. doi: 10.1038/nn.4458.

Fernández-Teruel A, Estanislau C. [Meanings of self-grooming depend on an inverted U-shaped function with aversiveness.](#) *Nat Rev Neurosci*. 2016 Sep;17(9):591. doi: 10.1038/nrn.2016.102. Epub 2016 Jul 28.

Río-Álamos C, Oliveras I, Cañete T, Blázquez G, Martínez-Membrives E, Tobeña A, Fernández-Teruel A. [Neonatal handling decreases unconditioned anxiety, conditioned fear, and improves two-way avoidance acquisition: a study with the inbred Roman high \(RHA-I\)- and low-avoidance \(RLA-I\) rats of both sexes.](#) *Front Behav Neurosci*. 2015 Jul 10;9:174. doi: 10.3389/fnbeh.2015.00174. eCollection 2015.

Baud A, Hermsen R, Guryev V, Stridh P, Graham D, McBride MW, Foroud T, Calderari S, Diez M, Ockinger J, Beyeen AD, Gillett A, Abdelmagid N, Guerreiro-Cacais AO, Jagodic M, Tuncel J, Norin U, Beattie E, Huynh N, Miller WH, Koller DL, Alam I, Falak S, Osborne-Pellegrin M, Martinez-Membrives E, Canete T, Blazquez G, Vicens-Costa E, Mont-Cardona C, Diaz-Moran S, Tobena A, Hummel O, Zelenika D, Saar K, Patone G, Bauerfeind A, Bihoreau MT, Heinig M, Lee YA, Rintisch C, Schulz H, Wheeler DA, Worley KC, Muzny DM, Gibbs RA, Lathrop M, Lansu N, Toonen P, Ruzius FP, de Bruijn E, Hauser H, Adams DJ, Keane T, Atanur SS, Aitman TJ, Flicek P, Malinauskas T, Jones EY, Ekman D, Lopez-Aumatell R, Dominiczak AF, Johannesson M, Holmdahl R, Olsson T, Gauguier D, Hubner N, Fernandez-Teruel A, Cuppen E, Mott R, Flint J. [Combined sequence-based and genetic mapping analysis of complex traits in outbred rats.](#) *Nat Genet*. 2013 Jul;45(7):767-75. doi: 10.1038/ng.2644.