UBICACIÓN/LOCATION:

Laboratorio 1 del INCYL

NOMBRE DEL LABORATORIO/GRUPO; RESEARCH GROUP NAME/ACRONYMS:

Laboratorio de Neurociencia Auditiva y Cognitiva
Cognitive and Auditory Neuroscience Laboratory
CANELAB

BREVE DESCRIPCIÓN DE LA LÍNEA DE INVESTIGACIÓN/ RESEARCH LINE

We study the structure and function of the auditory brain. Over the last 15 years, our research has focused on the neurophysiological and neurochemical mechanisms that govern neuronal adaptation, and the relationship between the MMN (mismatch negativity, a human brain signal altered in neuropsychiatric conditions) and its neuronal correlate, the SSA (stimulus specific adaptation). Since more recently, we study the processing of auditory information at a neuronal level from the perspective of the predictive coding theory of perception. We are currently expanding the scope of our research to cover the basic neuronal mechanisms involved in auditory learning. We investigate the behavioural consequences of auditory training, in both normal and neuropsychiatric animal models of disorders such as schizophrenia or Alzheimer disease. Finally, our lab is also concerned with the understanding of activity-dependent plasticity due to hearing loss.

INVESTIGADOR RESPONSABLE O PRINCIPAL DEL GRUPO/GROUP TEAM LEADER

Dr. Manuel Sánchez Malmierca
PERSONAL ADSCRITO/ GROUP MEMBERS
(indicar nombre completo y cargo o puesto que ocupa):

*David Pérez González
  (Investigador Postdoctoral; proyecto MINECO)

*Blanca Aurora Cervantes Sánchez
  (Investigador Postdoctoral; proyecto JCYL-UIC50)

*Camilo José Morado Díaz
  (Investigador Postdoctoral; Programa Juan de la Cierva)

*Flora M Antunes
  (Investigador Postdoctoral; Programa Propio Universidad de Salamanca)

*Guillermo Varela Carbajal
  (Investigador Predoctoral; Contrato FPI)

*Gloria Gutiérrez Parras
  (Investigador Predoctoral; Contrato FPI)

*Ana Belén Lao Rodríguez
  (Investigador Predoctoral; Unidad de Excelencia USAL)

*Lorena Casado Román
  (Investigador Predoctoral; ITN-MSCA- EU)

*Cristian Aedo Sánchez
  (Investigador Predoctoral; Gobierno de Chile)

PROYECTOS VIGENTES/ON-GOING RESEARCH PROJECTS (indicar nombre completo, referencia, Investigador principal, financiación y periodo):

Spanish MINECO (grant SAF2016-75803-P) to Manuel S. Malmierca (PI). PREDICTIVE CODING IN THE AUDITORY BRAIN: ANATOMICAL, PHYSIOLOGICAL AND BEHAVIOURAL CORRELATES.
Spanish JCYL (grant (Grant SA023P17) to Manuel S. Malmierca (PI). HIDDEN HEARING LOSS AND COCHLEAR SYNPATOPATHY: MULTIDISCIPLINARY STUDY OF ANIMAL MODELS, CLINICAL DIAGNOSIS AND COMPENSATION WITH HEARING AIDS. Oct 2017-Oct 2019. Amount awarded: € 120.000.


PUBLICACIONES/PUBLICATIONS
(indicar hasta un máximo de las 10 publicaciones más significativas):


doi: 10.1371/journal.pbio.1002397.

Nature Communications, DOI: 10.1038/s41467-017-02038-6.