

PhD positions in Auditory Cognitive Neuroscience

The **Brainlab-Cognitive Neuroscience Research Group** [www.ub.edu/brainlab] invites applications for several 3-year PhD contracts (FI/FPU) commencing early 2019.

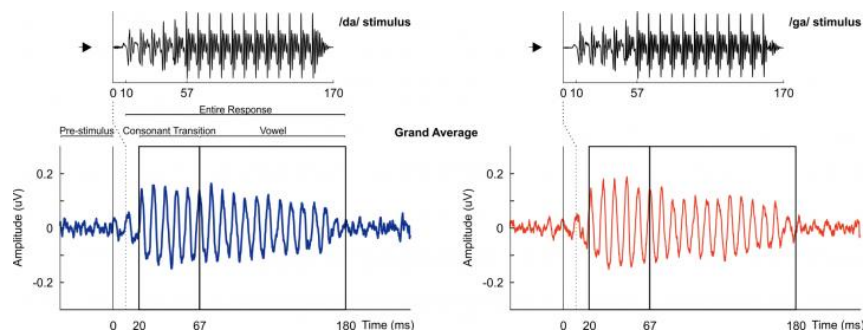
Principal Investigator: Prof. Dr. Carles Escera

Project 1. This PhD project is part of an ambitious research program addressing the **encoding of speech sounds in the newborn's brain** ([read more](#)), and will be carried out in collaboration with the [Sant Joan de Déu Barcelona Children's Hospital](#). The major goal of this program is to establish the **Frequency-Following Response (FFR; [read more](#))** as a potential biomarker of language achievement, reading abilities and neurodevelopmental success in babies born at risk for neurocognitive impairment, with fetal growth restriction or prematurity.

This research program departs from the large body of evidence supporting the FFR as barometer of experience-dependent plasticity of speech encoding, and specifically by the fact that the infant's FFR predicts reading abilities and literacy (see Kraus & Salter, 2016). The project aims at identifying the genetic, molecular and environmental factors that determine the neonatal FFR and to characterize the FFR in different neonatal clinical groups.

Project 2. This PhD project departs from our recent finding that the serotonin transporter-linked polymorphic region (5-HTTLPR) is involved in the accurate neuronal encoding of speech sounds (Selinger et al., 2016, *J Neurosci*, 36, 10782-10790). This PhD project aims at characterizing the **functional significance of genetic advantage in efficient speech encoding** ([read more](#)) as well as the underlying neurocognitive mechanisms.

These projects relate to our major research program at the *Brainlab*, which uses MEG, TMS, fMRI and genetic analysis to investigate the subcortical mechanisms of auditory perception.



Candidates must have a Master's degree (or equivalent) in *neuroscience, clinical linguistics, psychology, cognitive sciences, biology, biomedicine, engineering* or related field

The successful candidates will join the [PhD Program in Biomedicine](#) of the University of Barcelona through a competitive and prestigious [Spanish FPU](#) or [Catalan FI](#) fellowships.

Requirements: **1]** EU citizenship, **2]** 300 ECTS completed (at least 60 ECTS in a Master degree), **3]** the highest academic marks, **4]** computer skills (e.g., Matlab, Python, Praat)

Applicants should send **1]** a letter of motivation, **2]** CV, and **3]** an official transcript of grades (in [ECTS format](#)) by email to Dr. Carles Escera at cescera@ub.edu [**subject:** PhD – Escera]

Recommendation letters are also welcome

Applications will be processed until the position is filled [post data: April 20th, 2018]