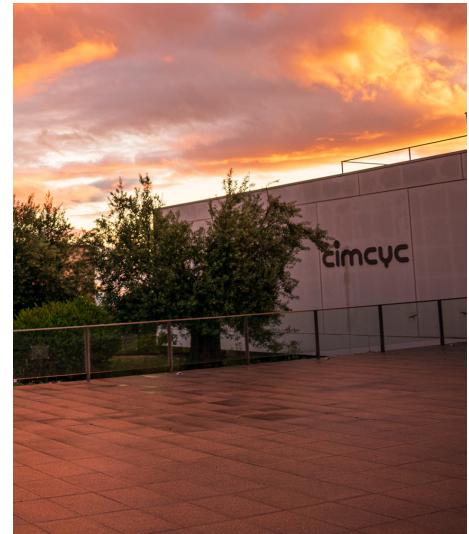# UNIVERSIDAD DE GRANADA

Centro de Investigación
Mente, Cerebro y
Comportamiento

Contratos Predoctorales en el CIMCYC

13/01/2023

The Mind, Brain and Behavior Research Center (CIMCYC, https://cimcyc.ugr.es/en) of the University of Granada in Spain offers six 4-year research positions (full time) to carry out a PhD in one of the research lines of the center described below. Applications will be accepted from 12/01/2023 - 26/01/2023 at 14.00, using the official submission site of the Spanish Science and Innovation Ministry (

https://aplicaciones.ciencia.gob.es/ayudaspredoctorales/).

Further info, online call and application procedure:
https://www.aei.gob.es/convocatorias/buscador-convocatorias/ayudas-contratos-predoctorales-formacion-doctoresas-2022

Potential candidates are advised to email the contact researcher of the line of their interest (listed below) and provide their CV plus a motivation letter for the position.

Summary of the research lines, requisites and contact for further inquiries:

Methods for Behavioral Assessment (Ref.: CEX2021-001161-M-20-1)

CIMCYC researchers work on cutting-edge methodological developments that increase the impact of the research performed in many other research lines of the center. Important contributions include measurement equivalence, bias, test and questionnaire development, and response processes to test and scale items from the more modern mixed-method approach to validity theory. This has been applied to topics such as humour, driving behaviours, violence against women, sexuality or forensics. Methodological work also has a significant role in numerous research lines developed by researchers at CIMCYC like burnout in health workers, driving simulations, chronic pain, radicalizations to terrorism or evidence-based peer-tutoring programs. In addition, CIMCYC researchers also contribute with several novel methods to assess mental functions in neuropsychology patients.

Degree(s) required: Undergraduate in Psychology

Additional (desirable) training: Master in Methodology for Behavioral or Social Sciences; computational social sciences courses; qualitative and/or mixed-methods research courses; emerging test and survey administration modes courses or seminars; R or Python programing skills.

Further information: Prof. José L. Padilla (@email)

Clinical & Health Psychology (Ref.: CEX2021-001161-M-20-2)

At the CIMCYC we study psychological factors that contribute to mental health and those involved in disease. Some study the effects of chronic stress on autoimmune deficits, or perinatal stress and its impact on neurodevelopment and emotional disorders during childhood. A related line investigates Grief and End of Life processes, focused on pathological mourning that presents high levels of emotional discomfort and inability to function. Additional lines study psychophysiological mechanisms of the psychological disorders. In addition, the Sex Lab studies key factors that underlie a healthy and pleasant sexual life or the double standard in sexuality for men and women. The CIMCYC also has a Sleep Lab, which develops interventions to improve sleep quality and ameliorate its disruption.

Degree(s) required: Undergraduate in Psychology

Additional (desirable) training: Master in Clinical Psychology. Advanced statistical analysis (e.g. R.) skills.

Further information: Prof. Isabel Peralta (@email)

Gender Studies (Ref.: CEX2021-001161-M-20-3)

This line studies the psychological and neural underpinnings of gender discrimination and violence and its relation with ideological variables, prejudiced beliefs, myths, as well as gender power asymmetry. CIMCYC researchers have made significant contributions to disentangling the role of individual, interpersonal and macrosocial structural factors in predicting intimate partner violence against women. Other studies investigate differences in structural brain anatomy in female victims, using a whole brain methodology. Our investigations have also transferred to society, for example, conducting the first macro-survey on intimate partner violence at the country of El Salvador. CIMCYC researchers have also made relevant contributions to other forms of violence against women, such as sexual assault or street sexual harassment.

Degree(s) required: Undergraduate in Psychology

Additional (desirable) training: Master in Social Psychology. Experience on designing and conducting research and analyzing data in Social Psychology.

Further information: Prof. Miguel Moya (@email)

Core Mental Functions (Ref.: CEX2021-001161-M-20-4)

The CIMCYC is a reference center on research focused on basic cognitive processes and applications to different fields, with renowned researchers in Memory, Learning and decision making, Language and thought, Reasoning, Numerical Cognition, Attention and Cognitive Control, Consciousness, Emotion and Motivation. For example, CIMCYC researchers have devised experimental procedures to measure attention in different populations or to dissociate underlying mechanisms in attentional orienting triggered by social and non-social cues, whereas other work has characterized the interactions between different types of attention and perceptual consciousness. Other researchers study how memory and language-related tasks involve executive control to negotiate interference, or explore how we think about abstract concepts. Another fruitful line of research employs associative learning modelling and experimental protocols to understand the etiology of addictive processes, which has led to influential theoretical proposals regarding the nature and causal mechanisms of addiction. Related applications focus on risky decision-making.

Degree(s) required: Undergraduate in Psychology OR Cognitive Science

Additional (desirable) training: Master in Cognitive or Affective Neuroscience, or Cognition, Cognitive or Affective Processes. Advanced programming (e.g. Matlab, Python) and analytical (e.g. R) skills.

Further information: Prof. Juan Lupiáñez (@email)

Neuroimaging & Artificial Intelligence (1) (Ref.: CEX2021-001161-M-20-5)

and

Neuroimaging & Artificial Intelligence (2) (Ref.: CEX2021-001161-M-20-6)

At the CIMCYC we employ state-of-the-art non-invasive neuroimaging tools and implement advanced analysis methods, including cutting-edge applications of multivariate analysis to fMRI and EEG neuroimaging data. We have pushed forward novel approaches aimed at assessing the activation state of specific information using multivariate pattern profiles. In addition, we combine fMRI tractography with Transcranial Magnetic Stimulation to study the link between brain areas, their connectivity and their causal role, and also participate in collaborations involving computational approaches to cognitive neuroscience.

Degree(s) required: Undergraduate in Signal Analysis OR Computer Science OR Physics OR Psychology OR closely related computation degrees.

Additional (desirable) training: Master program related to neuroimaging, human neuroscience and/or complex signal analysis methods. Advanced programming (e.g. Matlab, Python) skills.

Further information: Prof. María Ruz (@email)