INSTITUTO CAJAL

SEMINARIO PRESENCIAL

Viernes, 25 de febrero de 2022
12:30 h. Instituto Cajal (CSIC) Madrid

DRA. CARMEN CASTRO GONZÁLEZ
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INSTITUTO DE INVESTIGACIÓN E INNOVACIÓN BIOMÉDICA
Cádiz

Brain injury regeneration: modulating TGF, neuregulins and protein kinase C

Abstract

Brain injuries of different aetiology cause an irreversible neuronal loss and concomitant functional deficits that result in cognitive and motor impairment or even in alterations of the personality. Despite the capacity of the adult brain to replace neurons within specific regions, neuronal replacement in injuries is very limited and does not easily result in functional recovery. Our laboratory studies the role of kinases of the protein kinase C (PKC) family in stimulating the release of signalling molecules that promote neurogenesis in neurogenic niches in response to brain injuries such as transforming growth factor alpha (TGFa) and neuregulin 1. In addition we have isolated and synthesized pharmacological molecules that selectively modulate the release of these signals and promoting the generation of neuroblasts in brain injuries that become functional mature neurons.

Affiliation and short bio

Carmen Castro is currently a Professor of the Department of Physiology at the University of Cadiz. She studied her PhD in the Department of Biochemistry and Molecular Biology at the Universidad Autonoma de Madrid and after her postdoctoral training of two years at the University of Navarra and 5 years at the University of Illinois at Urbana-Champaign she joined the University of Cadiz upon receiving a Ramón y Cajal contract. Currently, her main research interest is the study of adult neurogenesis in brain injuries and in the aging brain as well as the isolation and design of molecules with pharmacological properties to promote neurogenesis.