



RESEARCH TOPIC-MEM6

ANTI-INFLAMMATORY ROLE OF OXYTOCIN IN 22Q11.2 DELETION SYNDROME: CELLULAR AND MOLECULAR SIGNALING MECHANISMS IN THE DEVELOPING BRAIN

Curriculum MEM Standard

Laboratory name: Neurobiology of oxytocin and vasopressin receptors, CNR Institute of Neuroscience

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Abstract

The neuropeptide oxytocin (OXT) has been firmly established as a master regulator of the social brain and OXT is currently proposed as a treatment for high prevalence conditions such as autism and schizophrenia (Young and Barrett, 2015). Several animal models of neurodevelopmental disorders display defects in the OXT system and sociability, some of which could be rescued by OXT treatment (Grinevich et al., 2016). However, OXT investigation has been restricted so far to the neuronal components of the central nervous system and far less attention has been devoted to the possible role of OXT on the neuro-immune and inflammatory dysregulation. Aim of this project is to investigate the immunological /inflammatory targets ameliorated by perinatal or adolescent exposure to OXT in the LgDel/+ 22q11.2DS mouse model, which embed the full hemideletion found in 22q11.2DS patients, the third major risk factor for the development of schizophrenia (Gur et al., 2014).

Main technical approaches

Mice handling, primary cell culture, determination of intracellular signaling pathways, immunocytochemistry and immunohistochemistry, confocal microscopy

Scientific references

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Type of contract

PhD scholarship awarded by Humanitas University of € 18.000 gross per year awarded by Humanitas University. This sum is exempt from IRPEF income tax according to the provisions of art. 4 of Law no. 476 of 13th August 1984, and is subject to social security contributions according to the provisions of art. 2, section 26 and subsequent sections, of Law no. 335 of 8th August 1995 and subsequent modifications.

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