

P2X7 Receptor in Amyotrophic Lateral Sclerosis

Objectives

The basic research project aims to study the role of P2X7 receptor in neuro-inflammation, mediated by the activation of microglia, that is involved in the first and most active immune defense in the central nervous system. This phenomenon and the increase in the expression of this receptor is one of the events that early occurs in sporadic and familial ALS. In particular, the development of a new experimental model and a drug treatment aimed at blocking the action of this receptor, would allow to clarify the importance of this process in the progression of the disease and encourage the immediate development of new therapeutic approaches. The project, which starts one year ago has already reached some goals. In particular, the P2X7 receptor has been silenced, that means its expression has been blocked in transgenic mice with the disease, to verify whether its removal is able to improve pathological conditions in the mouse models.

Partners

Principal Investigator: Nadia D'Ambrosi - Institute of Neurobiology and Molecular Medicine, Consiglio Nazionale delle Ricerche (CNR)
Partner 1: Mauro Cozzolino - Santa Lucia IRCCS Foundation, Rome
Partner 2: Patrizia Popoli - Istituto Superiore di Sanità, Rome

Budget

Euro 271.250,00

Duration

42 months

Evaluation

Proposal evaluated as excellent