Abstract

Given the importance of the ionotropic glutamate receptor activated by N-Methyl-D-Aspartate in learning processes and memory formation mediated by the transport of calcium through the pore channel associated to this receptor; it is important to develop models that permit the understanding of the homeostasis that gives the neuron the capacity to handle an increased flow of this cation without necrosis or apoptosis. This work presents a simple simulation based on the metabolic processes associated with the receptor as a first step to the understanding of the underlying mechanisms of learning and memory.

Keywords

calcium, excitotoxicity, learning, memory, model, receptor, simulation.