



BIOLOGY

Long-Term Potentiation (LTP) is a long-lasting enhancement of the strength of synaptic transmission that depend on NMDA receptor activation. LTP is a key mechanism for the understanding of some cellular and molecular properties by which memories are formed and stored. Following the high-frequency stimulation [2 stimulations at 100 Hz during 1 sec, at 20 sec intervals] of Schaeffer collaterals in the CA3 region, the fEPSPs amplitude recorded in CA1 is sustainly increased. Incubation of the slice with memantine, a non-competitive antagonist of NMDA receptors, prevents LTP induction. It's worth recalling that memantime is also a non-competitive antagonist of $\alpha 4\beta 2$ nicotinic acetylcholine receptors.

PATHOLOGIES ASSOCIATED WITH NMDA AND NICOTINIC RECEPTORS

Alzheimer's Disease
Parkinson's Disease
Dementia

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