

## **Mechanisms of synaptic plasticity in the mammalian brain**

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For the last three decades long-term potentiation (LTP) has been the dominant model for studying the ways in which Hebbian learning rules are incorporated in the mammalian brain. In the process much has been learnt about the physiology and molecular biology of synaptic plasticity, but the exact relationship between LTP and learning remains elusive. In this talk I will discuss the historical background leading up to the discovery of LTP, go on to consider recent evidence which challenges the view that LTP is primarily expressed as a postsynaptic change, and conclude by discussing the experimental approaches that need to be adopted to settle the still incompletely resolved issue of whether LTP provides the neural substrate for memory.