Synaptic Enzymes

Authored by

mohammad looti

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Synaptic enzymes are located in the synaptic cleft and are responsible for breaking down specific neurotransmitters. A synapse is a junction between two neurons in which information is passed by neurotransmitters.

The synapse is made up of two parts: the presynaptic ending and the postsynaptic ending (which is where the receptors for neurotransmitters are located). Synaptic enzymes deactivate neurotransmitters so the membrane potential can become stable and the synaptic channels can close. This process is called degradation and without these enzymes the synapse and channels would constantly be stimulated - essentially it would be like a light switch that is always left 'on'.

An example of a synaptic enzyme is acetylcholinesterase (AChE) which breaks down acetylcholine. (hyperlink)