To study how learning and memory happen in people, brain researchers turned to this “simpler” organism.	The sea slug *Aplysia californica*
When an unpleasant mild shock increases your response to a gentle touch, it’s an example of this learning process.	Sensitization
These proteins turn other proteins on or off by adding a phosphate chemical group to them, a process called phosphorylation.	Kinases

This is a long-lasting increase in the strength of a synaptic response following stimulation.	Long-term potentiation (LTP)
Production of these proteins results in growth of the synapse and an increase in the neuron's responsiveness to stimulation.	Neurotrophins
Long-term potentiation (LTP) takes place as a result of changes in the strength of synapses involving these receptors.	N-methyl-d-aspartate (NMDA)

The molecular cascade leading to protein synthesis is essential for this type of memory.	Long-term memory
As a child, H.M. developed a severe, difficult-to-treat form of this disease.	Epilepsy
H.M. had these parts of his medial temporal lobe removed.	Hippocampus; parahippocampal region

This process enables us to encode and retain the pieces of information that are truly valuable, and it can help us recover from trauma.	Forgetting
According to this theory, recalling stored information can impair our ability to recall similar pieces of information at a later date.	Retrieval-induced forgetting
Some memories are never forgotten. These, whether positive or negative, can change the encoding of the memory in ways that make it more permanent.	Highly emotional events