

Neurons change in learning-memory process

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University of Texas-Austin neuroscientists say they have observed large-scale changes across neuron dendrites during learning and memory processing.

The scientists said they discovered ion channels distributed in the dendritic membrane change during a simulated learning task, requiring a rapid production of new proteins.

"Our new work strongly supports the idea that learning involves changes in dendrites," said Daniel Johnston, director of the Center for Learning and Memory and a professor at the Institute for Neuroscience. He said the finding might lead to advances in understanding conditions such as epilepsy and age-related memory loss and could point to potential treatment opportunities for such conditions in the future.

The research was published online Oct. 23 and appears in the November issue of the journal *Nature Neuroscience*,

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