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Drug for Alzheimer's patients a step closer

By Leslie Mann

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A discovery by scientists at [Northwestern University's](#) Feinberg School of Medicine brings us one step closer to the development of a drug that could improve memory for patients with Alzheimer's disease or schizophrenia.

Led by assistant professor of physiology Peter Penzes, the research team used rats to study a brain protein called kalirin-7 and how it affects synapses, which Penzes describes as "brain cell connectors."

"We already knew that kalirin controlled the synapses," Penzes explained. "But now we understand how it works and that it could be responsible for memory storage. Kalirin acts like a volume dial, making the synapses stronger. This suggests that a drug that would stimulate kalirin could improve memory or delay the progression of memory loss."

The study supports previous research showing that Alzheimer's disease and schizophrenia patients have reduced levels of kalirin. And, conversely, intellectual activity can delay cognitive decline because it stimulates kalirin, which keep the synapses strong.

The next step, Penzes said, is to conduct clinical trials with humans.

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