

Schizophrenia linked to mutation of memory, sense-of-direction gene

Mutations in a gene that should enable memories and a sense of direction instead can result in imprecise communication between neurons that contributes to symptoms of schizophrenia, scientists report.

They found that dramatically reducing the amount of protein expressed by TMEM108, a gene already associated with schizophrenia, results in fewer, smaller spines, which work like communication fingers for neurons, said Dr. Lin Mei, chairman of the Department of Neuroscience and Regenerative Medicine at the Medical College of Georgia at Augusta University.

That translates to an impaired ability for neurons to receive whatever signals surrounding neurons are trying to send and mice displaying schizophrenia-like behavioral deficits such as impaired cognition and sense of direction.

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[However, when they gave a drug that increased AMPA receptor expression on the cell surface, the spines assumed a more healthy, mature state.

“Morphologically, the mice can be rescued,” Mei said. “We hope we will find that healthy function is restored as well, which could translate to a new treatment target for this complex, disabling disease.”

[The study can be found [here](#).]

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [Gene that enables memories, sense of direction produces schizophrenia-like symptoms when mutated](#)