Why do some people have great memories? It's in the genes

Researchers have identified more than 100 genes important for memory in people. The study is the first to identify correlations between gene data and brain activity during memory processing, providing a new window into human memory.

"This is very exciting because the identification of these gene-to-behavior relationships opens up new research avenues for testing the role of these genes in specific aspects of memory function and dysfunction," says Genevieve Konopka of UT Southwestern…"It means we are closer to understanding the molecular mechanisms supporting human memory and thus will be able to use this information someday to assist with all kinds of memory issues."

The genes the researchers identified as being important for human memory are distinct from genes previously correlated with other types of cognitive processing and resting state fMRI activity. "At this point, we cannot say whether the gene expression itself might drive memory or whether it is simply a reflection of the brain activity patterns needed for proper memory formation," Konopka says.

The memory genes also overlap with several genes associated with autism, which means "we have identified a window into the molecular pathways important for normal memory function that are at risk from a genetic perspective in autism," [Konopka] says.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: Identifying genes key to human memory: Insights from genetics and cognitive neuroscience

For more background on the Genetic Literacy Project, read GLP on Wikipedia.