

Overactive immune system may hold answer to schizophrenia's source

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis.

During his Ph.D., Steven McCarroll was surprised to receive a phone call from an old classmate – and startled to find the call came from prison. His friend had been walking down the street when he was gripped by the conviction that people were chasing him, and broke into an apartment to hide.

McCarroll's friend was in the throes of schizophrenia. Symptoms of the condition include hallucinations, such as hearing voices, and paranoid delusions.

The event set the stage for McCarroll's career. Now a [molecular biologist at Harvard Medical School in Boston](#), his latest work offers tantalising clues about the cause of the condition, which is poorly understood and can affect people for life. It suggests that schizophrenia can result from a normal stage of teenage brain maturation gone wrong.

The work builds on a recent [landmark study](#) that pointed to 108 regions of our DNA in which certain variants raise the risk of schizophrenia. The [most strongly implicated](#) area is a large region of the genome that encodes proteins involved in the immune system – on the face of it, a puzzling find for a brain disorder.

McCarroll's team has now found that people with the risky variants of this region have higher levels of a molecule called complement component 4. In the blood, C4 binds to microbes to signal that they should be eaten by immune cells.

Read full, original post: [Overactive brain pruning in teens could cause schizophrenia](#)