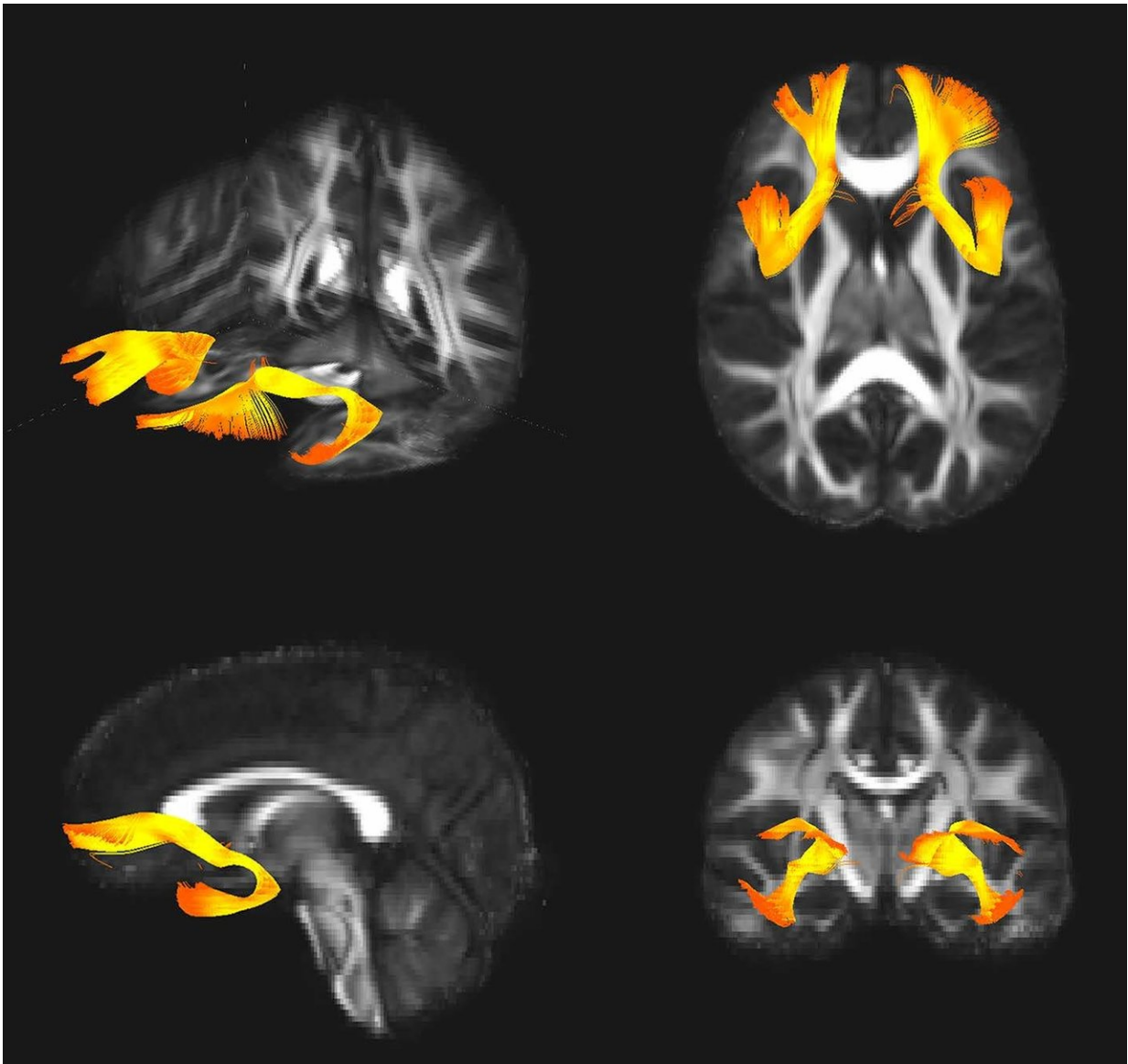


Shared genetics in schizophrenia and bipolar disorder

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A genetic variant implicated in bipolar disorder and schizophrenia is associated

with larger amygdala volume and altered prefrontal-limbic connectivity. Credit: Stéphane Jamain (data from diffusion-imaging.com)

A genetic variant associated with multiple psychiatric disorders drives changes in a brain network that may increase an individual's risk of developing bipolar disorder and schizophrenia, finds a study published in *Journal of Neuroscience*.

Stéphane Jamain and colleagues used genetic analysis and neuroimaging in samples of adults with schizophrenia, early-onset [bipolar disorder](#) and healthy controls—in addition to postmortem analysis of brain tissue from schizophrenia patients—to demonstrate that a variant of a gene involved in neurotransmission is associated with both disorders. They found that this [genetic variation](#) changes the expression of the SNAP25 protein in the brain, which may impact information processing between brain regions involved in regulating emotions. Consistent with this idea, the variant was associated with larger amygdala volume and altered prefrontal-limbic connectivity.

The authors replicated these findings in independent samples, minimizing the potential for false positives and increasing confidence in their results. The research confirms a shared genetic component of these disorders and points to a potentially new condition that may arise in patients with varying diagnoses in which this gene is implicated, such as attention-deficit/hyperactivity disorder.

More information: A multi-level functional study of a SNAP25 at-risk variant for bipolar disorder and schizophrenia, *Journal of Neuroscience* (2017). [DOI: 10.1523/JNEUROSCI.1040-17.2017](https://doi.org/10.1523/JNEUROSCI.1040-17.2017)

Provided by Society for Neuroscience

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