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Gene linked with mental illness is studied

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U.S. scientists have found a gene variant linked with mental illness is also linked with enlargement of a brain region that handles negative emotions.

The University of Texas Southwestern Medical Center and Central Texas Veterans Health Care System researchers focused on a gene related to the neurotransmitter serotonin. They found the region of the brain called the pulvinar is larger and contains more nerve cells in those carrying the gene.

Once specific nerve cells release serotonin, a molecule called the serotonin transporter, or SERT, brings it back into the cell. Drugs that prevent this re-uptake, such as Prozac, are frequently used to treat patients with depression.

The serotonin transporter gene has two forms, or variants: short, or SERT-s, and long, SERT-l. People carrying two SERT-s genes are more likely to experience depression than people with one or no SERT-s genes.

The researchers studied brains from 49 deceased people, with and without psychiatric illnesses. They found subjects carrying two SERT-s genes had pulvinar areas 20 percent larger and contained 20 percent more nerve cells.

The study is available online and will appear in a future issue of the journal Biological Psychiatry.