

Genetic variants altering key brain structures identified

In the animal kingdom, humans are known for our big brains. But not all brains are created equal, and now we have new clues as to why that is. Researchers have uncovered eight genetic variations that help determine the size of key brain regions. These variants may represent “the genetic essence of humanity,” says Stephan Sanders, a geneticist and pediatrician at the University of California, San Francisco, who was not involved in the study.

For the analyses, neuroscientist Paul Thompson at the University of Southern California and his colleagues looked for single-letter (nucleotide base) changes in DNA that correspond to the sizes of key brain regions.

[The team discovered eight “letter” differences that can shrink brain tissue by about 1.5 percent, depending on the letter inherited](#), Thompson and his colleagues report online today in *Nature*. Some of the letter variants were inside a gene, while others were near key genes.

Many of the eight genes are active during brain development and may play a role in neuropsychiatric disorders such as autism and schizophrenia, Sanders says. He hopes ENIGMA researchers will next look to see if there are links between a particular brain region’s size and one of these disorders.

Read full, original story: [Eight genes that make us brainiacs](#)