

Neurons have surprising amount of genomic diversity

Our brains contain a surprising diversity of DNA. Even though we are taught that every cell in our body has the same DNA, in fact most cells in the brain have changes to their DNA that make each neuron a little different.

Now researchers at the Salk Institute...have shown that one source of this variation...are present in 44 to 63 percent of healthy neurons and can not only insert DNA but also remove it. Previously, [they] were known...[as] “jumping genes” that copy and paste themselves throughout the genome, but the researchers found that they also cause large deletions of entire genes. What’s more, such variations can influence the expression of genes that are crucial for the developing brain.

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“The surprising part was that we thought all [these jumping genes] could do was insert into new places. But the fact that they’re causing deletions means that they’re affecting the genome in a more significant way,” says [Jennifer] Erwin.

[Rusty] Gage believes that diversity can be good for the brain...but that too much of it can cause disease. **The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis. Read full, original post:** The brain’s stunning genomic diversity revealed