

Kyla Miller

Writing assignment 4

Scientists discover how dozens of genes may contribute to autism

The article I have chosen to review is called, “Scientists discover how dozens of genes may contribute to autism” from The Washington Post. The article is about a study done by scientists at Stanford University have recently discovered a series of genes that may be responsible for autism. For years, conspiracy theorists have claimed that autism may be caused by vaccines, which has led to a lot of misinformation surrounding the topics. Scientists still cannot be sure of all the cause definitively, but recent studies suggest it may be caused by several dozen genes that are crucial to the development process that leads to autism. “The study delves into a 20-year-old theory that suggests one cause of autism may be a disruption of the delicate balance between two types of nerve cells found in the brain’s cerebral cortex, the area responsible for higher-level processes such as thought, emotion, decision-making and language.” (M. Johnson 2023)

It is believed through this study, that some nerve cells in the brain may be exciting other nerve cells, which is causing them to fire. Interneurons are doing the opposite, which can cause an over stimulation of the brain, leading to seizures and epilepsy. These are commonly seen symptoms of people with autism.

The study allowed the scientists to test all 425 genes at once with a method that was developed 6 years ago to test for autism. “They found 13 genes whose absence prevented interneurons from forming. They identified another 33 genes that, when missing, prevented interneurons from traveling to the cerebral cortex. All told, 46 genes — 11 percent of the 425 linked to neurodevelopmental disorders — appeared to affect the nerve cells that inhibit their neighbors, leading to an imbalance.” (M. Johnson 2023)

Does this method prove that the cause of autism is based upon these genes? I did some further research and found that the article was accurate, but further testing needs to be done before it is considered the definitive cause.

In the other articles I researched, I found a general consensus that autism is a heritable trait that is most likely linked to being inherited or an issue with genetic development in the fetus.

Sources:

<https://www.washingtonpost.com/science/2023/10/05/autism-genes-brain-development/>

<https://www.uclahealth.org/news/new-genetic-clues-uncovered-largest-study-families-with#:~:text=Autism%20is%20highly%20heritable%3A%20It,is%20yet%20to%20be%20determined.>