

Two new genes linked to Alzheimer's risk

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A team of researchers led by Cardiff University has identified two genes that influence a person's risk of developing Alzheimer's disease.

The new finding, which builds on the team's previous work of identifying 24 susceptibility [genes](#), enables a better understanding of the mechanisms underlying the disease and offers further hope in developing new treatments.

The two novel genes, which were not previously considered candidates

for Alzheimer's risk, were identified during a study which compared the DNA of tens of thousands of individuals with Alzheimer's with age-matched people who are free from the disease.

Dr Rebecca Sims from Cardiff University's School of Medicine said:

"In addition to identifying two genes that affect the risk of developing Alzheimer's disease, our new research reveals a number of other genes and proteins that form a network likely to be important in its development. These particular genes, which suggest that immune cells in the brain play a causal role in the disease, are also very good targets for potential drug treatment."

Dr Rosa Sancho, Head of Research at Alzheimer's Research UK, said:

"Genetic research is a vital first step on the road to new treatments for diseases like Alzheimer's. The discovery of new genes is like finding puzzle pieces that biologists can start to fit together to build a complete picture of a disease. Studies like this are influential in highlighting biological processes that go wrong in diseases like Alzheimer's – mechanisms that could be important targets for future drugs. These newly found genes implicate the brain's immune response, adding to compelling evidence that this system plays an important role in the development of Alzheimer's. Researchers are already investigating approaches to target the immune system in Alzheimer's and these findings will help to inform these important efforts.

"The rare versions of genes discovered in this study only make a small contribution to a person's overall risk of the disease. Lifestyle and age also play an important role in Alzheimer's risk as well as nearly 30 other known risk genes. Advances in technology have transformed [genetic research](#) in recent years but, even with these latest findings, a large portion of genetic risk for the disease remains unexplained. Alzheimer's

Research UK is proud to be supporting scientists at the cutting edge of this work as they continue to make valuable discoveries that are shaping our understanding of the [disease](#). There are currently no treatments to slow the progression of Alzheimer's and increased investment in research is vital so that we can capitalise on new findings and drive progress for people with the condition and their families."

Provided by Alzheimer's Research UK

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