

Genetic clues hold key to schizophrenia treatment

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Researchers have taken a step forward in understanding the genetics of mental illnesses such as schizophrenia and bipolar disorder.

The study, conducted by the University of Edinburgh, found that a gene called [DISC1](#) - known to play a role in the development of mental illness - may control the way some patients respond to psychiatric medication.

They also identified seven proteins that are important to the development of mental illness and hope the research could help to create new medicines that target these proteins.

The research was based on existing data from the [Human Genome Project](#), a pioneering study, which mapped all the genes in human DNA.

The team analysed variations of the DISC1 gene and found that it affects a number of other genes that current medications are designed to target.

They believe that by identifying those patients in whom DISC1 may be a root cause of illness, they could find the patients for whom these drugs would be most effective.

The results are published in the *Public Library of Science One*.

Dr. William Hennah, who led the project at The University of Edinburgh and is now based at the Finland Institute for Molecular Medicine, said: "We know that disorders such as [schizophrenia](#) have a [genetic element](#)

and that this specific gene, DISC1, is important to that process. This research helps us to understand exactly how it affects [brain development](#) and provides clues about how to solve problems when that process goes wrong."

Professor David Porteous, of the Institute of Genetics and Molecular Medicine at the University, said: "Schizophrenia is a devastating condition that affects around one in 100 people in the UK. By understanding more fully the genetic processes of mental health and illness we hope to identify ways in which medication might make a real difference to the lives of those affected by these conditions."

The team also hope that their technique of reviewing existing and publicly available genetic data could provide insight into a range of genetically-inherited disorders.

Source: University of Edinburgh

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