

Researchers find gene for left-handedness

August 1 2007

An international group of scientists, led by a team from the Wellcome Trust Centre for Human Genetics at Oxford University, have discovered a gene that increases an individual's chances of being left-handed. A report of the study is published in the journal *Molecular Psychiatry*.

The research, which involved over 40 scientists from 20 research centres around the world, revealed a gene called LRRTM1; the first to be discovered which has an effect on handedness.

Although little is known about LRRTM1, the Oxford team suspects that it modifies the development of asymmetry in the human brain. Asymmetry is an important feature of the human brain, with the left side usually controlling speech and language, and the right side controlling emotion. In left-handers this pattern is often reversed.

There is also evidence that asymmetry of the brain was an important feature during human evolution; the brains of our closest relatives, the apes, are more symmetrical than those of humans – and apes do not show a strong handedness.

The researchers also discovered that LRRTM1 might slightly increase the risk of developing schizophrenia. People with schizophrenia often have unusual patterns of brain asymmetry and handedness, so the researchers were not surprised when LRRTM1 also showed a possible effect on the risk of developing schizophrenia. Schizophrenia is a disorder of the brain, which results in impaired perception and thought. It affects roughly one per cent of adults worldwide.

The study leader, Dr Clyde Francks, said: 'People really should not be concerned by this result. There are many factors which make individuals more likely to develop schizophrenia and the vast majority of left-handers will never develop a problem. We don't yet know the precise role of this gene.'

Some of the researchers involved in this discovery are now planning further study on the roles of LRRTM1 in the developing brain, and to find other genes with which LRRTM1 interacts. Dr Francks said: 'We hope this study's findings will help us to understand the development of asymmetry in the brain. Asymmetry is a fundamental feature of the human brain that is disrupted in many psychiatric conditions.'

Source: University of Oxford

Citation: Researchers find gene for left-handedness (2007, August 1) retrieved 26 April 2024 from <https://medicalxpress.com/news/2007-08-gene-left-handedness.html>

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