

Scientists map genes behind bipolar disorder

In a first, scientists have comprehensively mapped the genes believed to cause bipolar disorder.

Indiana University neuroscientists combined data from the latest gene hunting studies for bipolar disorder with information from their own studies to zero in on the best candidate genes for the illness.

Their findings, reported in the latest issue of the American Journal of Medical Genetics, describe how researchers analysed how these genes work together to create a comprehensive biological model of bipolar disorder.

'Based on our work, we now project that there will be hundreds of genes -- possibly as much as 10 percent of the human genome -- involved in this illness,' said Alexander B. Niculescu, who led the team, in a press release.

'Not all genetic mutations will occur in every individual with bipolar disorder. Different individuals will have different combinations of genetic mutations. This genetic complexity is most likely what made past attempts to identify genes for the disorder through genetic-only studies so difficult and inconsistent.'

Until now there have been few statistically significant findings in searches of the human genome as it applies to bipolar disorder, he said.

'By integrating the findings of multiple studies, we were able to sort through, identify genes that were most likely to be involved in bipolar disorder, and achieve this major breakthrough in our understanding of the illness,' Niculescu said.

Bipolar disorder, sometimes called manic depression, affects millions worldwide and people who suffer from it can experience mild or dramatic mood swings, shifts in energy and a diminished capacity to function.

The findings of the study hold out the hope that, having assessed individual gene combinations, individuals likely to suffer from bipolar disorder can be identified even before the illness manifests itself.

This could result in preventive measures like lifestyle changes, counselling and low-dose medications.

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