A genetic variant increases the risk of developing schizophrenia in women

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A complete scan of the human genome has revealed that a genetic variant in the Reelin gene increases the risk of developing schizophrenia in women only. Researchers from the Hebrew University of Jerusalem and the University of Oxford, who conducted the study in the Ashkenazi Jewish population, confirmed their findings by establishing a multinational collaboration that included populations and researchers from the United Kingdom, Ireland, United States, and China. Their research is published in the February issue of the open-access journal *PLoS Genetics*.

Heritability of schizophrenia has been well established through epidemiological studies in past years. However, efforts to identify the genes associated with this devastating disease, which affects about 1% of the human population, have encountered significant difficulties. Technological advances that allow the complete and efficient scanning of the entire genome present a new opportunity to address this challenge.

The authors analyzed 500,000 genetic variants distributed across the whole human genome in DNA from patients with schizophrenia and control subjects. By comparing the genomes of hundreds of patients with schizophrenia with those of healthy controls across several human populations, the researchers identified a gene that significantly increases the risk of developing the disease, but interestingly in women only.

This study represents significant progress in the study of schizophrenia with possible practical implications in the areas of disease diagnosis and

drug discovery. Nevertheless, it is important to stress that these possibilities will require many years of additional research, and even then, success cannot be guaranteed.

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