

Integrative Genomic Analysis of Schizophrenia in the Basal Ganglia, and the Frontal lobe

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Abstract

Schizophrenia is a mental disorder which results in disordered thinking, hallucinations and behavior that impair daily functions which affects multiple brain regions such as basal ganglia, frontal lobe and many more. Earlier studies have shown that COMT is linked to schizophrenia. COMT when deleted results in a complex syndrome, the psychiatric manifestations of which include schizophrenia and other psychoses and so I decided to take COMT as a reference gene for doing genomic analysis. The purpose of this study was to identify possible candidate genes for Schizophrenia by doing gene search of COMT correlates in Basal ganglia and Frontal lobe and do comparative analysis. Gene expression data of COMT gene correlates in the Basal Ganglia, and the Frontal lobe was obtained from Allen Brain Atlas. A bioinformatics approach was used to analyze gene expression profiles in order to identify candidate genes that have an effect on Schizophrenia. linked to schizophrenia were CBS, DDR1, GSTP1, GSTT1, GSTT2, HOMER3, HLA-A, MAP4, PHGDH, PLXNB1, PSEN1, SMPD1, SREBF1, TSPO, and SOX10.

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Biography

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