



# Relationship between genetic polymorphisms in the *DRD5* gene and paranoid schizophrenia in northern Han Chinese

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**ABSTRACT.** Dopamine (DA) has been implicated in the pathophysiology of several psychiatric disorders, including schizophrenia. Thus, genes related to the dopaminergic (DAergic) system are good candidate genes for schizophrenia. One of receptors of the DA receptor system is dopamine receptor 5 (DRD5). Single nucleotide polymorphisms (SNPs) in the regulatory regions of *DRD5* gene may affect gene expression, influence biosynthesis of DA and underlie various neuropsychiatric disorders related to DA dysfunction. The present study explored the association of SNPs within the *DRD5* gene with paranoid schizophrenia in Han Chinese. A total of 176 patients with schizophrenia and 206 healthy controls were genotyped for four *DRD5* SNPs (rs77434921, rs2076907, rs6283, and rs1800762). Significant group differences were observed in the allele and genotype frequencies of rs77434921 and rs1800762 and in the frequencies of GC haplotypes corresponding to rs77434921-rs1800762. Our findings suggest that common genetic variations of *DRD5* are likely to contribute to genetic susceptibility to paranoid schizophrenia in Han Chinese. Further studies in larger samples are needed to replicate this association.

**Key words:** DRD5; Dopamine; Paranoid schizophrenia; Haplotype; SNP