



Association of the *VRK2* gene rs3732136 polymorphism with schizophrenia in a Northwest Chinese Han population

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ABSTRACT. Previous studies have found that the vaccinia related kinase 2 gene (*VRK2*) polymorphism was associated with schizophrenia (SCZ) in the worldwide population. This association was further supported by *VRK2* mRNA expression patterns and brain structure variations. Here, we analyzed four single nucleotide polymorphisms (SNPs) of the *VRK2* gene in a total population of 893 samples, consisting of 360 patients with SCZ and 533 healthy controls of Han Chinese descent using the SNPscan method. Single SNP, haplotype, and gender-specific association analyses were performed. We found that rs3732136 was significantly associated with SCZ ($P = 0.042$; odds ratio = 1.25; 95% confidence interval = 1.01-1.55). Further genotype and haplotype association analyses suggested a similar pattern. Our data provide preliminary evidence that the *VRK2* gene might play a

major role in the development of SCZ in the Northwest Chinese Han population.

Key words: *VRK2* gene; SNP; Schizophrenia; Association study