

A Family-Based Analysis of Whether the Functional Promoter Alleles of the Serotonin Transporter Gene *HTT* Affect the Risk for Alcohol Dependence

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A population association between a regulatory variation in the promoter of the serotonin transporter gene (*HTT*) and severe alcohol dependence was recently reported. We analyzed this potential association in a large number of systematically ascertained families in the United States; these families had at least three first-degree relatives who were alcohol-dependent. Analyses focused on individuals defined as alcohol-dependent by criteria from ICD-10 and on subsets of these individuals reporting withdrawal-related symptoms. Application of the transmission disequilibrium test did not provide support for either linkage or association between this functional polymorphism and alcohol dependence; there was no significant bias in the transmission of either allele to the alcohol-dependent offspring. We also report that African Americans differ from Caucasians in allele frequencies for this polymorphism.

Key Words: Serotonin Transporter, Functional Promoter Polymorphism, Alcoholism, Association Study, Linkage Analysis.