Reviewer's report

Title: Association study of polymorphisms in the excitatory amino acid transporter 2 gene (SLC1A2) with schizophrenia

Version: 3 Date: 21 June 2004

Reviewer: Evgeny Rogaev

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General
The manuscript of Deng et al describes analysis of two case-control groups (schizophrenia and normal individuals of Japanese origin) for polymorphisms in the excitatory amino-acid transporter 2 (SLC1A2) gene.

Authors apply adequate genotyping and statistical methods including analysis of 11 SNps in SLC1A2 gene.

The major concern is regarding statistical power for the relatively small sample in initial test that include only 100 schizophrenic and 100 normal individuals, but haplotype analysis for multiple SNPs. Despite initial positive finding for SNP2 haplotype this association was not confirmed in other population sample suggesting type I error. Although the data may not be conclusive authors probably correct in the statement that their data do not support the idea that SLC1A2 is a major locus for schizophrenia. It would be important also to indicate if any SNPs were located in encoding region of SLC1A2 and/or that direct analysis of encoding sequence revealed no mutations in SLC1A2 in schizophrenic samples.

Minor point. In introduction authors review the data supporting glutamatergic hypothesis. It might be useful to indicate recent data for positional cloning of G72 and neuregulin genes possibly linked to schizophrenia and glutamatergic dysfunction. The paper may be published in BMC Psychiatry

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)