Reviewer's report

Title: No Association Between the Sigma Receptor Type 1 Gene and Schizophrenia, Results of Analysis and Meta-analysis

Version: 2 Date: 10 September 2003

Reviewer: Yasuyuki Fukumaki

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The paper by Uchida et al. showed no association of the polymorphisms of the sigma receptor type1 gene (SR-BP1) with schizophrenia by case-control studies using their own samples, and samples including other Japanese cases and controls in two association studies on the same polymorphisms published previously. They concluded that SR-BP1 does not confer susceptibility to schizophrenia.

Discretionary points
To conclude clearly that SR-BP1 does not confer susceptibility to schizophrenia, authors had better select appropriate SNPs in introns or flanking regions to cover the entire region of SR-BP1 with linkage disequilibrium (LD) and do the association study. Otherwise, there is still a possibility that SNPs within the gene not in LD with the polymorphisms studied here are associated with schizophrenia. If the entire gene region is in complete LD, this possibility can be neglected.

Major points
1. In the Results and Discussion section, line 6 of the second paragraph, authors described a sentence ?The power analysis -----small?. Authors should cite the reference to calculate statistical power of their study. Statistical power depends on not only the sample size but allele frequencies and genotype relative risk. These parameters should be given in the text.
2. The PCR primers used in the mutation screening should be provided in the Materials and Methods.
3. Each p value should be cited in two other studies of Table 2

Minor points
1. Title ?-----, Results of Analysis and Meta-analysis? is not clear enough because of no explanation of Analysis.
2. The gene symbol of the sigma receptor type1 gene, SR-BP1 had better be used in the paper.
3. The rs-number of each SNP should be provided for convenience to readers.
4. In Table 1, G should be A, and order of the genotypes and alleles should follow the way in Table 2 (from major to minor alleles).
5. The term, x2 should be c2.
6. Articles are missing from some words such as Japanese population (the abstract section), sigma receptor type 1 gene (the background section), 5? flanking region (the mutation screening and genotyping section) and so on. The manuscript had better be overlooked by a native English speaker.

Advice on publication: Accept after minor compulsory revisions

Level of interest: A paper whose findings are important to those with closely related research interests
Quality of written English: Needs some language corrections before being published

Declaration of competing interests:
None