Reviewer's report

Title: Excess of transmission of the G allele of the -1438A/G polymorphism of the 5-HT2A receptor gene in patients with schizophrenia responsive to antipsychotics.

Version: 1 Date: 14 November 2007

Reviewer: Homero H Vallada

Reviewer's report:

General

Benmessauoud et al. examined the -1438A/G polymorphism of the 5-HT2A receptor gene in 100 patients with schizophrenia and their respective parents and the response to first generation antipsychotics. Their result suggests an association between the G variant and good treatment response (mainly haloperidol). The report is well written, uses a sound methodology and presents interesting results. In conclusion the study can contribute to this important new area.

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

1) The magnitude of the association of the allele “G” should be presented in the abstract.

2) The authors should also be careful with the interpretation of the results and address other possible interpretations, such as that the results could have been generated by chance etc.

3) Were there any previous investigation confirming the participation of the father as the biological contributor to each proband (figures around 10% are found in families in which the father is not the biological father of the proband in many European countries)

4) The percentage of good responses for the first generation antipsychotics (mainly haloperidol) was 38% (62% were not good responders). How will the authors explain this unexpected result (the reverse would be more probable 62 vs. 38).

5) It would also be interesting to see the results of the T102C polymorphism of the 5-HT2A. Why the authors did not consider to genotype this polymorphism in the present study and in the one they published in 2005 (Hamdani et al.) since they discussed the importance of it in both studies.

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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)

1) Figure 1 was not very clear. For instance, the “N” in each subgroup is 23 and 65 but the legend referred to 100 individuals (?)

2) As the authors commented at the beginning of the manuscript, it is understandable that the 5-HT2A receptor gene has rarely been investigated in first generation antipsychotics (very limited affinity etc. particularly for haloperidol).

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests