Reviewer’s report

Title: The 5-HTTLPR polymorphism of the serotonin transporter gene and short term behavioral response to methylphenidate in children with ADHD

Version: 4 Date: 3 November 2009

Reviewer: Elias Zintzaras

Reviewer’s report:

It was difficult to follow the statistical analysis performed by the authors. Since the design of the study is a two period cross-over (with two sequences PM and MP) (as it is stated in the paper), I would like the authors to analyse the study using a general linear model as follows:

\[ Y = m + \text{Subject effect} + \text{Period effect} + \text{Treatment effect} + \text{Period\times Treatment interaction} + \text{Gender} + \text{Gender\times Treatment interaction} + \text{Genotype effect} + \text{Genotype\times Treatment interaction} + \text{error}. \]

Subject effect = Sequence effect + Subject nested to Sequence effect.

\[ Y = \text{response (CGI-parents, CGI-teachers)}. \]

Genotype effect = (recessive model for s’s’, dominant model for s’s’).

Then, they should construct a figure to present the Genotype\times Treatment interaction using the estimates from the above model.

In Table 1, the comparisons of genotypes for continous baseline characteristics should be carried out a simple one-way anova (i.e. (157-1)-2=154 df for the error).

Omit the Cohen’s d, or explain explicitly its usefulness.

What is the meaning of HWE testing since all subjects are diseased.

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'