Reviewer's report

Title: Lack of association between serotonin transporter gene polymorphism 5-HTTLPR and smoking among Polish population: a case-control study.

Version: 3 Date: 21 July 2008

Reviewer: Marcus Munafo

Reviewer's report:

The authors have largely addressed the concerns raised in the previous round of reviewing, and the manuscript reads considerably better as a result. I have some residual concerns / recommendations:

1. Given the small sample size (which obviously cannot be changed), I still think that the length of the paper is not justified. However, I support publication of non-significant results. The authors now at least note the limitation and make the point that they cannot exclude the possibility of a small effect.

2. The authors have clarified that their comparison group is “never smokers”. Although this may have been the question asked, there is considerable variability in how the general public conceive of “never” smoking. Does this mean never one cigarette, not even a single puff? Never more than 100 cigarettes? Never regular? There is a literature on how to best operationalize the phenotype of “never smoking” which should be discussed here, and the exact definition used in this case clarified.

3. Relatedly, in the study sample and measures section there is a specification of the definition of “ever smokers”, “current smokers” and “former smokers”, but the definition of “never smokers” is not given. Table 1 only gives genotype and allele frequencies for “ever smokers” and “never smokers”, when those for all four smoking groups should be reported. This continues to be somewhat confusing.

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