Reviewer's report

**Title:** Evaluation of microdeletions and microduplications associated with cognitive impairment in a large cohort of subjects with autism spectrum disorders identifies duplications at 15q11-q13, 22q11 and Xp11/TM4SF2

**Version:** 4  **Date:** 15 July 2008

**Reviewer:** Zdenek Sedlacek

**Reviewer's report:**

The authors have responded in sufficient detail to most points raised in the previous reviews. I suggest the following discretionary revisions:

1) "Dependent" (MLPA, see p. 8) should be used instead of "dependant" (new title and pp. 3 and 6).

2) The last sentence of the Results should be re-worded "segregated with the altered MPLA results".

3) In the absence of any functional tests, the substitution in ARHGEF6 should be described as a "variant of unknown significance" rather than "not likely contributing to the ASD phenotype" (the last sentence of the Discussion). It can be argued that i) synonymous changes are not necessarily silent; ii) ARHGEF6 is an established XLMR gene; iii) the variant was not found in controls and databases; iv) the variant was found in two brothers affected by ASD (+MR?) and their (carrier?) mother.

**Level of interest:** An article of importance in its field

**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.