Reviewer's report

Title: A stable pattern of EEG spectral coherence distinguishes children with autism from neuro-typical controls A large case control study

Version: 2 Date: 19 April 2012

Reviewer: Robert John Barry

Reviewer's report:

The authors have revised the MS, improving it in relation to most of my previous comments.

I see two major compulsory revisions remaining:

1. It is a substantial defect of the MS that the authors do not properly describe in their Discussion the most important results of the study for other researchers/clinicians. Precisely what are the most important ASD coherence characteristics in terms of increase/decrease in particular frequencies in particular regions?

2. There is one further glaring problem remaining with this MS, concerning the authors’ reply to my previous comment:-

Comment 3: ‘The findings of the study are related poorly to prior work cited in the Introduction. This needs to be discussed before the more speculative material.’

Reply to Comment 3: The now improved Discussion section more clearly delineates the methodological advances of the current study over the studies cited in the Background section before presenting the more speculative material.

Essentially the authors ignore all previous coherence studies on ASD. While I appreciate their focus on methodology, their actual findings warrant publication here, not just methodology. What useful information can clinicians/researchers gain from this study NOW.

Please list and discuss your most important ASD differences, then relate them to previous findings.

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.