Reviewer's report

Title: Correlations of Gene Expression with the Conners' inattention and hyperactivity/impulsivity rating scales in Tourette syndrome: A Pilot Study

Version: 1 Date: 18 July 2012

Reviewer: Paul Sandor

Reviewer's report:

Major compulsory revisions

1. None

Minor Essential Revisions

2. This is an interesting report. The authors rightly point out that the study is limited due to the small sample size and it therefore represent a proof of concept pilot study, to be expanded upon and hopefully replicated.

3. Although it is encouraging that about 10% of the genes associated with IA and HI in this study have been linked to ADHD in previous studies I believe there is a need for fuller discussion of the difficulty in extrapolating from the results obtained from individual circulating immune system cells to the fixed, but highly interconnected neuronal networks in the brain.

4. It needs to be explained more clearly why studying ADHD in TS patients is an advantage. In fact it is not clear whether this group of patients have the same neuropathology as "pure" ADHD despite phenomenological similarities.

5. A statistician's opinion would be valuable given the small sample size and a large number of probesets.

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

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests