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: 21 June 2012

Reviewer: Hao Deng

Reviewer's report:

The article of Tian et al. investigates whether gene expression in blood correlated with inattentive (IA), hyperactive/impulsive (HI) rating scales and/or both in subjects with Tourette syndrome. Twenty one samples were tested in the project and the authors reported the pathophysiology of ADHD and/or its subtypes in TS may involve the interaction of multiple genes and gene expression may be useful for studying IA and HI symptoms that relate to ADHD in TS and perhaps non-TS subjects. There are a few flaws in the manuscript:

1. All the statistical symbol “p” in the paper should be changed to “P”.
2. The article may be written more concisely.
3. The gender and ethnic origin of the subjects should have been described in a more specific way.
4. There are no normal controls or controls with ADHD only in the experiment design.
5. The authors should increase the sample size to make the conclusions more credible.
6. The format of Table 1 is not accord with the requirement of BMC medical genomics.

The article of Tian et al. investigates whether gene expression in blood correlated with inattentive (IA), hyperactive/impulsive (HI) rating scales and/or both in subjects with Tourette syndrome. Twenty one samples were tested in the project and the authors reported the pathophysiology of ADHD and/or its subtypes in TS may involve the interaction of multiple genes and gene expression may be useful for studying IA and HI symptoms that relate to ADHD in TS and perhaps non-TS subjects. There are a few flaws in the manuscript:

1. All the statistical symbol “p” in the paper should be changed to “P”.
2. The article may be written more concisely.
3. The gender and ethnic origin of the subjects should have been described in a more specific way.
4. There are no normal controls or controls with ADHD only in the experiment design.
5. The authors should increase the sample size to make the conclusions more credible.
6. The format of Table 1 is not accord with the requirement of BMC medical genomics.

**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.