Reviewer’s report

Title: Network analysis identifies a putative role for the PPAR and type 1 interferon pathways in glucocorticoid actions in asthmatics

Version: 1 Date: 27 March 2012

Reviewer: Zuyi Wang

Reviewer’s report:

The authors designed a bioinformatics approach to integrate gene expression microarray data and knowledge-base of protein-protein interactions for increasing understanding of GCs actions in asthmatic lung epithelia. This approach helped enrich knowledge for the limited microarray data in identifying relevant canonical pathways. The overall design of the approach is acceptable.

Minor Essential Revisions. In common pathway analysis, it will be helpful if the authors can provide a statistical estimate of the degree of relevance between the pathways and the genes in the modules detected and other gene sets (Figure S7). In other words, the degree of relevance provides an estimate of the chance of getting a pathway containing the same number of overlap genes by chance. Selecting pathways based on the number of overlap genes is not very convincing. This estimated chance may take into account the number of genes in a module or a gene set, the total number of overlap genes, and the total number of genes in the pathway.

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

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.