Reviewer’s report

Title: HIV-1 Tat Protein Alter the Tight Junction Integrity and Function of Retinal Pigment Epithelium: an in vitro Study

Version: 1 Date: 19 February 2008

Reviewer: Francesca Peruzzi

Reviewer’s report:

In this study Ling Bai et al investigate the effects of HIV-1 Tat protein on the barrier function and tight-junction protein expression of retinal pigment epithelial cells (RPE).

The authors found that treatment of RPE cells with 100nM Tat protein results in increased permeability of these cells and decreased expression of a number of transmembrane proteins associated with the tight-junction.

Although the observation that Tat exposure affects barrier function is interesting, this is a descriptive paper which also requires substantial revision in the presentation of the data as well as intensive English editing. Perhaps the authors could select one of the proteins affected and determine the mechanism by which Tat alter its level of expression, protein stability, etcâ¦

Consistent with all the other figures, also figures 5 and 6 should include Hi-Tat as an additional control.

Minor comments
Figure 2 can be combined with figure 3.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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

Quality of written English: Not suitable for publication unless extensively edited

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