Reviewer’s report

Title: Brain injury associated biomarkers TGF-β1, S100B, GFAP, NF-L, tTG, Alβ2PP, and Tau enhanced and UPS impaired concomitantly during acute brain injury caused by Toxocara canis in mice

Version: 1 Date: 27 February 2008

Reviewer: Celia V Holland

Reviewer’s report:

In my view, this is a very interesting manuscript that contributes new knowledge and moves the enquiry concerning cerebral toxocariasis forward.

Minor essential revisions

1. Please explain the choice of mouse strain. Inbred strains differ in their susceptibility to Toxocara infection in the brain. This should be mentioned.

2. Reasons for the choice of dose and the timing of postmortem should also be elaborated. Provide data on accumulation in the brain from the literature.

3. Two way analysis of variance followed by one way analysis of variance is mentioned in the methods. Why two way followed by one way? It is necessary to explain what factors were used in the analysis (control versus infected? time?) and ideally the individual F ratios ought to be provided associated with the Figures.

4. The legend and explanation of Figure 4 is ambiguous with respect to the infecteds versus controls.

5. The Discussion should clearly outline and elaborate the key findings of the paper - it is not always clear what the authors found versus their comparisons with the literature.

6. Conclusion: There is a strange sentence stating that there is no strong evidence to link increased expression of BIAB and behavioural disorders. There is no evidence to my knowledge and that would certainly be an interesting line of future enquiry.

Discretionary Revisions

The following references could be included

1. A review on the diagnosis of Toxocara provides useful data on seroprevalence (to highlight the degree of exposure worldwide) by Smith and Noordin (2006) in Toxocara: the enigmatic parasite published by CABI.

mice. Parasite Immunology 30, 181-185.

**What next?:** Accept after minor essential revisions

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**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