Reviewer's report

Title: IgG, IgM and IgA antibodies against the novel polyproteins in active tuberculosis

Version: 1 Date: 27 February 2014

Reviewer: Shajo Kunnath-Velayudhan

Reviewer's report:

- Major Compulsory Revisions

1. Background should emphasize on the literature that leads to the current work. Provide rationale and background behind the argument that measuring different antibody isotypes can increase diagnostic accuracy. Previous studies that examined antibody responses during treatment should also be introduced.

2. Authors conclude that there is no significant difference in antibody responses between active disease and at various stages of treatment. However, Fig. 4 shows that the antibody profiles do change during treatment. Additional data analysis should be performed to address the discrepancy.

- Minor Essential Revisions

1. It appears that ROC analysis was performed with healthy individuals as controls. It should be mentioned in the Methods section.

2. Much text in the results section is redundant with the information provided in the tables and the redundancy should be minimized as much as possible.

3. In Fig. 3, panels B1, B2 and B3 are redundant with panels A1, A2 and A3 respectively. Measures of data spread can be shown in panels A1, A2 and A3. Note that measure of spread is shown in panel A1, 1M group.

4. Style/formatting suggestions: Italicize M. tuberculosis (For example, in first paragraph in the Background). Also needs to define "Mtb" when used for the first time.

5. In the abstract, the constituents of polyproteins need to be provided.

6. In the abstract, clinical groups needs to be defined. It is not necessarily obvious what S+ means.

7. Unusual usage of the word polymorphism in the first paragraph of the discussion and the first paragraph of results.

8. The word bacilloscopy may be replaced by microscopy (second paragraph of the background)

9. In the methods, provide more details about the classification of TB groups.
Methods used for smear and culture examination should be stated.

10. In the methods, the description on treatment subgroups have to be made clear.

11. In the methods section, state how the MTB infection was excluded from healthy individuals? Also it should be Latent TB infection and not TB infection.

12. y-axis labels are missing in Fig. 1, panels A3, B3 and C3.

13. In Table 1, what is the difference between #Pos and # Pos. for one isotype of antibody? For example, 94 and 53 for S+/C+ group under IgG.

14. What statistical test was used for analyze treatment data? Needs to be described in the methods.

15. Wrong use of the word "excretion" (last but one paragraph in Discussion).

**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.

**Declaration of competing interests:**

I declare that I have no competing interests