Reviewer’s report

Title: Comparison of Two Interferon Gamma Release Assays in the diagnosis of Mycobacterium tuberculosis infection and disease in The Gambia

Version: 1 Date: 20 June 2007

Reviewer: Claudio Fortis

Reviewer’s report:

General

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Page 5, 1th paragraph: from "Negative control wells..."the cut off reported is very high and unusual, how has been calculated?

Page 7, 2nd and 3rd paragraphs: should be better to report the data in a 2x2 table or in a flowchart.

Page 7, 3rd paragraph: from "there was no significant discordance". I am not convinced of this sentence (25% QFT-GIT positive/ELISPOT negative and 24% ELISPOT positive/QFT-GIT negative)?

Figure 2 is redundant respect to table 2 and should be eliminated.

The lack of a positive control for QFT-GIT could effectively lead to false negative results.

The discordant results found with the two IGRAs are a new and unknown observation that should be better discussed. Technical problems like an unusual cut off for positive ELISPOT results or the absence of a positive control for QFT-GIT should be considered.

Page 11, 1st paragraph: from "IGRAs are not subject to boosting", however some recent reports (Naseer et al., Eur Respir J 2007, 29:1282 and Igari et al., Int J Tuberc Lung Dis 2007, 11:788) reported of a booster phenomenon of QTF-G after prior TST administration (6 moths and one month before, respectively).

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Page 3, end of the 1st paragraph: from "the need for 2 patient visit" is not a confounding factor and the sentence should be rephrased.

Page 5, 1st paragraph: from "The ELISPOT was considered...", sentence not intelligible, should be rephrased. Page 7, 1st paragraph: from "Just over 60%...", sentence not clear, should be rephrased as "Just 60% of the household contacts were female while 60% of cases were male".
Page 7, 2nd and 3rd paragraphs: could the authors better define "test failure"? it is referred to undetermined results or to technical problems or what?

Page 8, 3rd paragraph: from "When a positive TST..." is referred to all subjects or to contacts only?

Page 10, 4th paragraph: for what concern the discordance between the TST and the IGRAs, the sentence "is most often due to negative TST and positive IGRAs results" should be true for active TB, but not for LTBI.

Discretionary Revisions (which the author can choose to ignore)

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: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests' below.