Reviewer's report

Title: A group of novel serum proteins is associated with the pathological changes of pulmonary tuberculosis

Version: 1 Date: 5 August 2013

Reviewer: Yunn-Hwen Gan

Reviewer's report:

Minor Essential 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.

The authors have presented a logical and clear manuscript on the associations between C4b, FN and PEPD and pulmonary tuberculosis. There are some minor grammatical errors which require corrections, eg. informed consent instead of consents, pg 8 which expressed should be that shows, pg 8 groups instead of group, pg 10 which is proved should be which is proven etc.

The title indicates 3 novel serum proteins when none is novel in the context of their association with TB or the processes described with TB infection, as stated by the authors in the discussion. Thus, the title should state the three proteins profiled and their association to pulmonary TB instead.

A few brief statements about the rationale for choosing to look at these 3 proteins should be included in the introduction.

Why is C4b chosen instead of C3b, which would be common to all 3 complement pathways and thus capture everything, as it is also downstream of C4b for the MBL and classical pathway? Might there not be also some background alternative pathway activation which would reflect different immune status of patients versus controls?

The authors should include explanation on power calculations performed to determine whether there were enough samples for comparison to achieve statistical significance, particularly when samples were broken into subgroups in
the patient category. This is an important point.

The manuscript is under-referenced in the Introduction. For example, reference 4 is inappropriate. The authors should cite those several studies as mentioned in the text to show defects of innate immunity to PTB. "TB cavity is formed by liquid discharge..." is not referenced.