Reviewer's report

Title: Tuberculosis Associated with Mycobacterium tuberculosis Beijing and Non-Beijing Genotypes: A Clinical and Immunological Comparison

Version: 3 Date: 12 June 2006

Reviewer: Maxim Filipenko

Reviewer's report:

In this manuscript the authors describe effects of different M. tuberculosis (Mtbc) strains on the clinical presentation of the disease. The Mycobacterium tuberculosis genotype family known as "Beijing/W," "W-Beijing," or "Beijing" is widespread. The Beijing genotype may have a predilection for developing drug resistance and may be spreading worldwide, perhaps as a result of increased virulence. A better understanding of differences in virulence between M. tuberculosis genotypes (particularly Beijing ones) could be important with regard to the efforts at TB control and the development of improved antituberculosis vaccines. Although as presented the results are essentially descriptive, the work contains some potentially useful information. Several points need to be addressed.

Major points:

Conclusions. Virulence of Mycobacterium tuberculosis strains has been traditionally assessed in terms of the ability of organisms to replicate within specific organs of mice and guinea pigs following aerosol infection. Human monocots models have been used to examine intracellular growth rates of M. tuberculosis reference strains and clinical isolates to determine if these correlate with virulence as previously defined in animal models. Data presented in paper only supports some aspect of host reaction. Conclusions should be rewritten.

The authors have targeted defined set of the Beijing family strains. 13 from 21 Beijing family strains belong to one cluster (22325173533) and does not have drug-resistance. Described subtype of Beijing strain could be different from ones in cited papers (for example study performed in Russia by Drobniewski et al) and it should be discussed.

Minor points:

The methods of mRNA analysis described too shortly so that it is difficult to trust these results (for ex. lack of basal IL-13 mRNA level).

The study would benefit from including other markers of Th2 response.

What next?: Accept after discretionary revisions

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests