Reviewer's report

Title: Identification of a predominant isolate of Mycobacterium tuberculosis using molecular and clinical epidemiology tools and in vitro cytokine responses.

Authors:

Dr Meenu K Sharma (meenu_sharma@hc-sc.gc.ca)
Assaad A Al-Azem (umalmoua@cc.umanitoba.ca)
Joyce Wolfe (joyce_wolfe@hc-sc.gc.ca)
Earl S Hershfield (ehersh@ccu.umanitoba.ca)
Amin Kabani (akabani@hsc.mb.ca)

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Reviewer: Dr Marina Luquin

Level of interest: A paper of limited interest

Advice on publication: Reject

Discretionary Revision
1- This work was carried out in the province of Manitoba, where there is a very high incidence of TB. However, the authors provide few details of the epidemiology of TB in this province, giving a bibliographic reference instead. I think more details should be included in the introduction about the specific TB epidemiology in Manitoba.

Compulsory Revision
1- In the results the authors specify that 93% of the isolates (107/115) of the Type 1 strain have been carried out on aboriginals living in reserves. They also say that 60.8% of the isolates Type 1 strain (70/115) have been carried out in Winnipeg, the capital of Manitoba. Are the aboriginal reserves in Winnipeg? I think this point should be made clear.

2- In the same results section, lines 120 to 122, it says that 70 of the 115 isolates of the Type 1 strain were taken out in Winnipeg and most of these (91 out of 115) were new cases. The numbers do not seem to coincide. This section of the results concerning the epidemiology of the Type 1 strain should be rewritten to make it clear.

3- In the discussion, the authors suggest that the Type 1 strain may be particularly pathogenic, that is, more virulent, as it is the cause of one out of every four cases of TB in Manitoba, and of nine out of every ten cases in the aboriginal population. I would like to see information about the relationship between the aboriginals affected by this strain. Do they live in the same reserve? Do they share a home, or leisure facilities such as bars or sports installations, and do they go to the same church? Are they relatives or friends? Maybe the Type1 strain is not particularly virulent, and its greater ability to infect is due only to epidemiological questions? I think that all this should be clarified in the discussion.

4- Lastly, I do not consider it appropriate to prove the greater virulence of the Type 1 strain by means of a comparative study of the cytokine production, using two laboratory strains H37Ra and H37Rv. If it is to be shown that the Type 1 strain is more virulent than the other TB strains that have affected the population of Manitoba, the comparative study of the cytokine production should have been made between the Type 1 strain and some of the other TB strains which affected the population studied over
the same period of time.

**Competing interests:**

None declared.