Reviewer's report

Title: The pathogen recognition sensor, NOD2, is variably expressed in patients with pulmonary tuberculosis.

Version: 1 Date: 27 May 2007

Reviewer: Bernhard Ryffel

Reviewer’s report:

Lala and colleagues I investigated the role NOD in the TB response: NOD RNA transcripts by PCR in BAL and blood leukocytes from pulmonary TB patients were tested in a limited number of patients. No significant differences in NOD1 and 2 transcriptional responses were detected in patients and controls. In two patients, however, NOD2 expression was increased and correlated with toll-like-receptor 2 and 4 expression. Finally, NOD2 mRNA levels in blood leukocytes augmented after anti-tuberculosis treatment.

The data are very preliminary and there are several issues which need to be considered:

The BAL samples from controls and TB patients differed significantly in absolute numbers of leukocytes, lymphocytes and macrophages, but the exact number of the latter is not given, no mention of the amount of epithelial cells is made, at least the counts have to be given.

Only transcriptional data are given for TLRs, it would be interesting to see whether membrane expression is altered.

Functional tests would be very useful: In vitro restimulation of blood leukocytes with TB antigens to test the production of proinflammatory cytokines in the patient population.

In the paragraph “Signalling pathways” it is unclear what was the sample size, the stimulant (MDP?), and no results are shown. Further, high level of FLICE are reported, but no data are given.

Pathogen-induced NOD2 transcripts were investigated in control blood leukocyte, no data are given.

Last, figure 2 and 3 are inversed and one part is missing.

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

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: Not suitable for publication unless extensively edited

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'