Reviewer's report

Title: The role of TLR2 in the host response to pneumococcal pneumonia in absence of the spleen

Version: 2 Date: 8 March 2012

Reviewer: Frederic Pene

Reviewer's report:

The authors addressed the majority of my comments. However in my opinion, the main weakness of the manuscript remains in the choice of the model itself.

As I already mentioned in my first review, I think that a highly lethal model in control animals is not accurate to prove the point of increased susceptibility of TLR2 KO animals. The authors now acknowledge it in the revised discussion section.

Additional survival curves of splenectomised WT and TLR2-KO with lower bacterial loads would certainly help to more precisely depict the role of TLR2 in this setting. I suggest performing a simple additional survival experiment using a lower bacterial load in WT and TLR2 KO splenectomised animals. The results could be reported as an additional figure or even be reported as data not shown. In the absence of survival difference in a less severe model, the present results would then become valuable.

Such a severe model could be relevant in order to show an increased resistance of other animals. Although all mice die, TLR2 KO animals seem to die more slowly and have less lung damage. These unexpected but still preliminary findings might also deserve to be further investigated in a less severe model.

Minor comments:
Data are no longer expressed as boxplots but as scatterplots. This has to be corrected in the statistics paragraph of the methods section.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
'I declare that I have no competing interests'