Reviewer’s report

Title: Induction of beta Defensin 2 by NTHi requires TLR2 Mediated MyD88 and IRAK-TRAF6-p38MAPK Signaling Pathway in Human Middle Ear Epithelial Cells

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Reviewer: Oren Froy

Reviewer’s report:

The authors nicely demonstrate the signaling pathway leading to hBD-2 induction in response to WCL of NTHi. The experiments were performed carefully and the results are convincing. However, the manuscript, in my opinion, should be revised to have a better flow.

Major Compulsory Revisions

1) The Introduction does not cover the field that is presented in the results. The Introduction should deal more with the MyD88------p38 pathway. This pathway is well characterized and should be mentioned in the Introduction, so that when the reader sees those molecules in the Results section he/she will have an idea about the logic behind the experiments. For examples the authors describe this pathway briefly in the â##Dominant negative plasmidsâ## section. This description should be referenced and transferred to the Introduction.

Discretionary Revisions

1) Figures should be rearranged: Fig. 6B should be combined with Fig. 3 to show the imporance of TLR2; Fig. 4A and B should be combined; Fig. 4C can be omitted; Fig. 5 A and B should be combined and moved to Fig. 4; Fig. 6 A should be part of Fig. 4. I think this rearrangement would give the paper a better flow. Of course, the corresponding parts in the text and the references to Figures should all be changed accordingly.

Minor Essential Revisions

1) There are more than three defensins isolated at the peptide level (Yanagi et al., Respir Res, 2005 and references describing epididymal beta-defensins) â## this should be corrected in the Introduction.

2) Lipooligosaccharide (LOS) â## should be speled out in the text.

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

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.