Reviewer’s report

Title: Transcriptome analysis of human monocytic cells infected with Burkholderia species and exploration of pentraxin-3 as part of the innate immune response against the organisms

Version: 0 Date: 10 Mar 2019

Reviewer: Narisara Chantratita

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The objective of this study is to investigate the potential for modulation of host immune response-related genes and pathways during intracellular survival of B. mallei by assessing global host transcriptional changes during infection of a human Mono Mac-6 monocytic cell line. This research demonstrates the interactions between PTX3 and Burkholderia species including B. mallei, B. pseudomallei and B. thailandensis.

Comments

1. Abstract: Please include the results of rhPTX-3 binding to bacteria and complement activation.

2. The sentence in the abstract "We report on PTX3 as a novel opsonin of Bt and Bp, together with evasion of PTX3 recognition by Bp" is overstated. In the results PTX-3 has just been demonstrated to bind to some of these bacteria. The term "opsonin" may be misleading because this study does not show that PTX-3 facilitates phagocytosis. The conclusion should be modified.

3. In several places, PTX-3 has been demonstrated to be involved in innate immune recognition, phagocytosis and complement activation in several microorganisms. Please provide example names of those organisms in the introduction.

4. The experiment in Figure 5 is "binding assay" not "opsonization". Please consider to change.

5. In discussion, the authors could make it more concise and avoid to over interpreting the data. There are many sentences throughout this part that the suggestions are not supported by the data in this study.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

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