Reviewer's report

Title: Characterization of early host responses in adults with dengue disease

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Reviewer: Anuja Mathew

Reviewer's report:

In this manuscript the authors performed whole blood transcriptional profiling on dengue virus PCR positive patients sampled 72 h of self reported fever and compared them to signatures obtained at defervescence and in convalescence. The results indicate a significant increase in chemokine signals early in dengue disease. There are some concerns that need to be addressed with this manuscript.

Major revisions:

The data are interesting and point to substantial increases in the sera as well as in transcripts in whole blood of chemokines CCL2, CXCL10, CCL8 and CCL3. For accurate observations to be made, the patients would have to be classified into primary and secondary cases and differentiated based on serotype.

Was there any correlation made between levels of certain chemokines and severity of disease? The authors state that none of the patients progressed to fulfill the criteria for severe dengue but did any associations arise between disease symptoms and increase/decrease in transcripts?

The current study also looked at adult patients in Singapore whereas previous studies examined samples from children with DF and DHF. While the results are not novel they strengthen previous in vitro findings and provide a clearer picture of the role of soluble mediators that are elevated following dengue infection. A more detailed discussion of the literature and findings from other studies need to be addressed.

Minor revisions:

Figure 1 summarizes all the data generated and discussed in the Tables. As it stands, this figure is not clear and needs to be modified and explained more clearly. The axes are not legible as well.

Since the basis for this manuscript is a low density PCR array, a more detailed description of how the samples needs to be included in the Materials and 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:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.