Reviewer's report

Title: Immune response to live-attenuated Japanese encephalitis vaccine (JE CV) neutralizes recent Japanese encephalitis virus isolates from South-East Asia and India

Version: 2 Date: 12 December 2013

Reviewer: Jun Luo

Reviewer's report:

In the present MS, Matthew Bonaparte et al. assessed the neutralization capacity of a chimeric JEV vaccine (JE-CV)-induced antibodies against the recent isolated wild type JEVs, and suggested that the results were consistent with previously generated data on the neutralization of wt JEV isolates, and no differences were observed between genotype 1 and 3 JEV. However, it seems that several important points need to be revised first.

Major Compulsory Revisions

1) In Methods, although five different titer categories were created, including the increasing titers from low (titers 40-80, two pools) through medium (titers 160-320, two pools), high (titers 640-2560, two pools) and very high (titers >5120, one pool), I think at least three independent pools of each category should be included for evaluating their neutralization sensitivities to distinct JEV strains.

2) For the Statistical methods, the authors ranked the neutralization sensitivity for seven JEV strains within each sample pool using GMT, which is reasonable. However, the subsequent rank across all sample pools was performed using the average GMT. Whether it is a scientific statistical method? And, how to explain the differences between the average rank (overall GMT) and those ranks analyzed based on any of a single sample with low, medium, high and/or very high GMTs?

3) For JEV viruses, the authors stated that they used the recent isolated viruses. However I noted that the latest isolates, JEV-SM1 and JEV-057434, were isolated in 2003 or 2005, respectively. These isolates were obtained at least 8 years ago. Importantly, the genotype 1 strain of JEV-SM1 is derived from pig. May be it is better to use a human-derived GI-JEV in the present study, why not?

4) Finally, I suggest the author to revise the present MS to be a brief report or a short communication, which may be more suitable for publishing on BMC infectious disease.

Minor Essential Revisions

1) On page 6, the last sentence, revise 2007 to 2005? It is not consistent with
Table 1.

**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