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: Date: 24 December 2013

Reviewer: Cheng-Feng Qin

Reviewer's report:

Bonaparte and coauthors tested the cross-neutralization against recent genotypes 1 and 3 JEV strains in children immunized with JE-CV, a novel licensed JEV vaccine, and based on the PRNT results, the authors concluded that there was no difference in neutralization capability against JEV isolates in JE-CV-immunized children. JEV genotype shift is continuing in Asia, while all vaccine products are based on genotype III. The manuscript represents an interesting and important concept of the area, and the reviewer has the following comments.

Major Compulsory Revisions

1. The authors stated that no difference in neutralization titers, however, as shown in Figure 1 and Table 1, the GMT variations are too big. Actually, the reviewer noticed there is BIG different for selected samples. For example, sample 7 in Figure 1, PRNT50 for JE-902/97, together with SA14-14-2 and Nakayama, was clearly lower than that for JE-CV.

2. Statistically analysis is critically needed. Only eight samples were subjected to PRNT assay and comparison, the sample size may be too small for statistic analysis.

Minor Essential Revisions

3. The reviewer noticed that neutralization titers for JE-CV and SA14-14-2 varied. Since JE-CV derived from SA14-14-2 and contained the same prM-E domains, what factors caused the difference. The authors can discuss it.

4. The reviewer suggests the authors be caution about their results description and conclusion. JE-VC does induce protective immune response against all strains tested, however, neutralization titer variations among different does exist. Especially, the abstract should be improved to avoid misleading.

5. Genome sequence of JE-TVP236 should be sequenced and submitted to Genbank, supporting the genotype clustering.

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**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.