Author's response to reviews

Title: Vaccination with Hemagglutinin or Neuraminidase DNA Protects BALB/c Mice against Influenza Virus Infection in Presence of Maternal Antibody

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Author's response to reviews: see over
Dear Dr. Lolu da-Silva,

Thank you for your email on June 27 regarding our re-reviewed manuscript. Now we have improved the ms according to the reviewers’ suggestion and made a point-by-point response to the comments as follows.

**Reply to Dr. Zichria Zakay-Rones**
According to referee’s comment, number of mice used and number of repetition have been pointed out in the manuscript.

**Reply to Dr. Noboru Yamanaka**
Minor essential revisions
1. According to reviewer’s suggestion, we have deleted a few repetitions in “Discussion” section.
2. We have analyzed the survival using Kaplan-Myer's method on the survival curve in Figure.1 according the requirement in review.
3. We have described the number of mice in the manuscript.

**Reply to Dr. Ian C. Brett**
Thanks for referee’s suggestion in the review. The antibody titer determined by fluorescent NI assay may be lower, but it is relatively lower and associated with the survival rate and residual lung virus titers of mice to a certain degree. We believed that the conclusions in this paper are reliable. We’d prefer that this paper could be published first. And we will compare fluorescent NI assay and the thiobarbituric acid/fetuin based NI assay in further study, and publish the data in a separate paper. We could also redo the experiments using the thiobarbituric acid/fetuin based NI, but it is difficult for us at current stage. The remaining serum collected from immunized mice may be not enough for the new assay. Therefore it may take us another 3-6 months to reimmunize mice (totally several hundreds of mother mice and the offspring) and analyze the antibody by new assay system. Since we have never compared the two assay system, we can not accept the idea that we publish this paper with a few sentences acknowledging that the fluorescent NI results may not be as good as thiobarbituric acid/fetuin based NI. Thus I leave it for the editor to decide.
Minor essential revisions:
The meaning of $2^n$ has been explained in the table legend according to the requirements in review.

We are looking forward to your reply.
Thank you again for your time and your work!

Sincerely yours,
Ze Chen M.D., Ph.D., Professor