

Article: Zika-Induced Male Infertility in Mice is Potentially Reversible and Preventable by Deoxyribonucleic Acid Immunization

### Abstract

I think the abstract summarizes all of the key sections well. I like that it is broken down by subsections.

### Introduction

I thought this was a good introduction which introduce the topics of the Zika virus and current vaccinations efforts.

There is no clear research question stated in the end of the introduction, but the last paragraph of the introduction defines the purpose of the study. It still may be helpful to state the research question outright in that paragraph.

### Methods

I thought the methods were overall well detailed and explained.

Some sections of the methods, such as the Zika strain specificity (under “Animal Experiments” subsection), specific primers and probes (under “Determination of Viral Ribonucleic Acid Load” subsection), and the details on the mice species (in “Mating Studies” subsection), used may do better in a supplemental section, rather than being directly published in this article.

For the data analysis section, I am not well equipped to judge to use of the Tukey’s multiple comparison posttests and the Grubb’s test, and request further review of the statistical analysis.

### Results

Data was clearly displayed and explained in this section of the article.

I would move table 2 up so that it is contained in the results section, rather than being located in the discussion, as this table is referred to in the results section three times but is never directly referred to in the discussion.

The data from figure 5 should be explained for the 75- and 207-day time points. Additionally, there are some areas in the paper that are referred to when there the data is not shown (and labeled as such). For example, there is discussion of data taken on the sacrifice day (267 days post-challenge), but there is no data table or figure for this data. I believe it would be worthwhile to include this data, or if it is not available, state why. If no reason is given, I would recommend against discussing this data in the article.

### Discussion/conclusion

I think that, overall, the discussion presented the study’s findings well.

I believe there should be a section included in future directions for research on this topic. The conclusion does a good job of stating the limitations of the mouse model’s reflection of the human reaction to Zika, but I think stating the next steps for understanding the affects on human infertility would be worthwhile.

Decision: Accept with proposed changes