

63097-Answering Reviewers

Reviewer #1:

General Comments:

1. The English language of the text needs improvement.

Thank you for your advice. We already have re-edited the manuscript for grammar, sentence structure, word usage, spelling, capitalization, punctuation, format, and general readability.

2. The immune repertoire is not the same in all persons. It depends on the life-time exposure to various foreign antigens of each one of us and it is not the same in all persons. How one can be sure that some of the immune repertoire differences found in HBV-infected persons are HBV-related and not random? An answer to this question is good to appear somewhere in the article.

Thank you for your comments. Although the immune repertoire differences found in HBV-infected persons don't have enough evidence to prove them are HBV-related, however, the researches were designed scientific enough to control the confounding factors like age, gender, HBV infection condition, so that the results could reflect the HBV-related immune repertoire differences.

3. I would suggest that authors should explain in a separate glossary or commentary the meaning of such terms as "gene recombination", "random additions", "deletions", "somatic hypermutations", "gene conversion", "receptor editing", "class-switch recombination", "high-throughput sequencing", "individualized vs. common clonality" etc. Readers of the article may not be familiar with these terms and, I consider some explanations necessary.

Thank you for your advice. We have explained each terminology you mentioned above in the bracket behind it.

Major Comments:

1. (Page 2, line 14): There is no cure for chronic DNA viral infections. The authors should refer to a "functional cure".

Thank you for your scientific advice. We have revised it.

2. (Page 6, line 17): The authors should give more details about the HBV status of the tested persons.

Thank you for your advice. We have given more details about the HBV status of the tested persons according to the original article in the revised manuscript.

3. (Page 21, Table 1): Please explain abbreviations in a footnote of the table.

Thank you for your advice. We have added abbreviations in the footnote of the table.

Minor Comments:

1. (Page 2, Line 2): ... afflicting 257 million people worldwide.

Thank you for your advice. We have revised this language mistake.

2. (Page 5, Line 20): Do the authors mean "targeting known 3' end sequence"?

Thank you for pointing out this spelling mistake. Yes, we mean "targeting known" and have revised it.

Reviewer #2:

1. The description of TCR and BCR structure is too heavy and long.

Thank you for your advice. We have tried our best to delete some information in the revision manuscript. However, the structure of TCR and BCR is of great importance in comprehending the immune repertoire and related to the description of figure 1 and figure 2. As a result, we retained most of the description of TCR and BCR structure.

2. There are too many descriptions about the development and treatment of chronic hepatitis B that have no correlation to Immune repertoire.

Thank you for your scientific comment. The descriptions about the development and treatment of chronic hepatitis B provide the knowledge background related to the researches of immune repertoire in HBV infection, development, treatment and vaccination.

3. The correlation between Immune repertoire and the incidence and efficacy of chronic hepatitis B is not clear enough.

Thank you for your comment. There are not enough literatures in field of the correlation between immune repertoire and the incidence and efficacy of CHB. That's why we composed this review to actuate more researches in the field of immune repertoire in CHB.