

Dear Editors:

We are pleased to have an opportunity to have our paper entitled “Risk prediction of gastric cancer by a polygenic risk score of *Helicobacter pylori*” (Manuscript NO: 76367) published in your Journal. Thanks for the constructive comments from reviewers and scientific editor, which would be much useful for our ongoing study on gastric cancer. The manuscript has been revised as required. Those revisions are highlighted in yellow in the manuscript.

1. Answers to the comments from reviewers:

(1) Response to Reviewer #1:

Thanks for constructive comments and suggestions. The manuscript has been revised. Details of revisions:

- 1) The PRISMA checklist was missing.

Response: The PRISMA checklist has been uploaded.

- 2) The basic information about the two groups: gastric cancer (n = 253) and non-gastric cancer (n = 769) groups should be illustrated. The difference between these two groups also recommended to analyze.

Response: The basic information has been supplemented in the paragraph of Patients and SNP selection in section of Materials and Methods. We agree with the comment that factors such as personal information, diet habits, and economic status effect are associated with the occurrence of gastric cancer.

Unfortunately, most of them are not available for analysis. Involvement of these factors in the risk prediction of gastric cancer has been discussed in the third paragraph of Discussion section.

- 3) The grammar and the language should be improved, such as “The length of SNPs were no longer than five contiguous nucleotides.”

Response: The grammar and language have been checked and revised by professional editing of AJE. (See cert, please)

- 4) The individual information, nutrition, economic status would also be confounders which should be discussed in the manuscript.

Response: These confounding factors have been discussed as suggested in the third paragraph of Discussion section. Three references have been added. The citing number and the reference list have been changed accordingly.

(2) Response to Reviewer #2:

Thanks a lot for your helpful constructive comments and suggestions. The manuscript has been revised accordingly.

- 1) The conclusion should be written with a practical tone.

Response: It has been revised as suggested in the Abstract, Core tips and the section of Conclusion.

- 2) Please discuss limitation of this work.

Response: The limitation of this work has been discussed in the fourth paragraph in Discussion.

- 3) In Discussion, the author should compare the results of this work with similar relevant articles which emphasis on difference of their work and similar articles.

Response: Thanks for the comment. This has been revised as suggested in the third paragraph in Discussion.

2. Answers to the comments from Editor Office's comments and suggestions:

The authors used public data to analyze the performance of the polygenic risk score (PRS) model of *Helicobacter pylori* SNP in predicting the risk of gastric cancer. There are many similar articles, which are not very innovative. Self-Citation Count: 2 The self-referencing rate should be less than 3%. It is unacceptable to have more than 3 references from the same journal. To resolve this issue and move forward in the peer-review/publication process, please revise your reference list accordingly. However, lacking validation at the cellular level and in animal models, the available results are not sufficient to support the authors' current conclusions.

Response:

- 1) Thanks a lot for the constructive comments. We have checked the references and made the following changes. The number of cited references has been

changed accordingly in the text and Reference list.

Ref. 21 in the original version has been deleted to minimize the self-citation count.

Ref. 29 in the original version has been replaced with another reference to avoid more than three references from the same journal.

2) The limitations of the study have been discussed as suggested in the fourth paragraph in Discussion. The conclusion has been revised as suggested in the Abstract, Core tips and the section of Conclusion.

3. Answers to the comments from Company editor-in-chief:

Thanks a lot for the comments. We have used the Reference Citation Analysis (RCA) when revising the manuscript. Figures and tables have been submitted as required.

Best Regards

Sincerely yours,

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