World Journal of Gastroenterology: Manuscript NO. 90768

Identification of an immune-related gene signature for predicting prognosis and immunotherapy efficacy in liver cancer via cell–cell communication Jun-Tao Li¹, Hong-Mei Zhang ¹, \boxtimes , Wei Wang ², and Dong-Qing Wei ³, \boxtimes

Response to Editors & Reviewers

To editors and reviewers

Dear editors and reviewers:

Our sincere thanks go out to the editors and reviewers who reviewed our manuscript and provided constructive comments that significantly improved it.

We have made detailed revisions in response to comments and suggestions made by editors and reviewers, and the main changes are summarized below:

- The format of all legends has been corrected;
- The manuscript has been polished, and a language certificate has been provided;
- The highlights of the latest cutting-edge research results have been further supplemented and improved.

Best regards,

The Authors

January 9, 2024

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Dear all:

Thanks again for reviewing and processing our manuscript, particularly for your constructive comments and valuable suggestions. Following these comments and suggestions, we have revised the manuscript. The following is a point-by-point response to editors and reviewers, in which we first quote the comments and then reply how we have revised the manuscript to accommodate the changes. We use **black sans serif font** for our responses and **blue** for comments to facilitate cross-referencing. The revised manuscript highlights the revision with **yellow shading**.

Best regards, The Authors January 9, 2024

1 To Editor-in-Chief

a) Editor's Decision Letter

I have reviewed the Peer-Review Report, full text of the manuscript, all of which have met the basic publishing requirements of the World Journal of Gastroenterology, and the manuscript is conditionally accepted. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office's comments and the Criteria for Manuscript Revision by Authors.

When revising the manuscript, it is recommended that the author supplement and improve the highlights of the latest cutting-edge research results, thereby further improving the content of the manuscript.

b) Response to Editor-in-Chief

Thank you for your valuable comment. Following this comment, we provided a more detailed description of the highlights of the research results from Wang et al. and Tang et al., and supplemented the review of the latest cutting-edge research findings from Li et al. to further enhance the content of the manuscript. See the yellow-highlighted portion in the second paragraph of the Introduction section in the revised manuscript.

Revision P 0.0

Using bulk RNA sequencing (RNA-seq) data, Tang et al^[11] first screened gene modules partitioned by weighted gene co-expression network analysis that were most relevant to tumor immune phenotype genes. Subsequently, a tumor immune phenotype-related gene signature in liver cancer was identified through LASSO and univariate Cox regression analyses. Similarly, Wang et al^[12] employed differential expression analysis and univariate Cox regression to identify differentially expressed genes associated with overall survival. These genes were further refined through LASSO regression to construct a novel immune-related prognostic model in hepatocellular carcinoma.

Page 4-5

Revision P 0.0

Li et al^[15] accurately identified cell subpopulations related to liver cancer by integrating bulk and scRNA-seq data, introducing the cell group structure into the model construction process.

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2 To Science Editor

a) Science Editor's Comments

1 Conflict of interest statement: Academic Editor has no conflict of interest.

2 Scientific quality: The author submitted a study on identification of an immune-related gene signature for predicting prognosis and immunotherapy efficacy in liver cancer via cellcell communication. The manuscript is overall qualified.

(1) Advantages and disadvantages: The reviewer have given positive peer-review reports for the manuscript. Classification: Grade A; Language Quality: Grade A. The manuscript presented is very well written and the authors carried out a thorough evaluation of the available data and bring important results for the management of patients with chronic liver disease and cirrhosis, that is, at risk of developing malignant hepatic neoplasms.

(2) Main manuscript content: The author clearly stated the purpose of the study and the research structure is complete. However, the manuscript is still required a further revision according to the detailed comments listed below.

(3) Table(s) and figure(s): There are 8 Figures and 2 Tables should be improved. Detailed suggestions for each are listed in the specific comments section.

(4) References: A total of 28 references are cited, including 13 published in the last 3 years. The reviewer didn't request the authors to cite improper references published by him/herself.

3 Language evaluation: The English-language grammatical presentation needs to be improved to a certain extent. There are many errors in grammar and format, throughout the entire manuscript. Before final acceptance, the authors must provide the English Language Certificate issued by a professional English language editing company. Please visit the following website for the professional English language editing companies we recommend: https://www.wjgnet.com/bpg/gerinfo/240.

4 Specific comments: (1) Please provide the Figures cited in the original manuscript in the form of PPT. All text can be edited, including A,B, arrows, etc. With respect to the reference to the Figure, please verify if it is an original image created for the manuscript, if not, please provide the source of the picture and the proof that the Figure has been authorized by the previous publisher or copyright owner to allow it to be redistributed. All legends are incorrectly formatted and require a general title and explanation for each figure. Such as Figure 1 title. A: ; B: ; C: .

(2) Please obtain permission for the use of picture(s). If an author of a submission is reusing a figure or figures published elsewhere, or that is copyrighted, the author must provide documentation that the previous publisher or copyright holder has given permission for the figure to be re-published, and correctly indicate the reference source and copyrights. For example, "Figure 1 Histopathological examination by hematoxylin-eosin staining (200 ×). A: Control group; B: Model group; C: Pioglitazone hydrochloride group; D: Chinese herbal medicine group. Citation: Yang JM, Sun Y, Wang M, Zhang XL, Zhang SJ, Gao YS, Chen L, Wu MY, Zhou L, Zhou YM, Wang Y, Zheng FJ, Li YH. Regulatory effect of a Chinese herbal medicine formula on non-alcoholic fatty liver disease. World J Gastroenterol 2019; 25(34): 5105-5119. Copyright ©The Author(s) 2019. Published by Baishideng Publishing Group Inc[6]". And please cite the reference source in the references list. If the author fails to properly cite the published or copyrighted picture(s) or table(s) as described above, he/she will be subject to withdrawal of the article from BPG publications and may even be held liable.

(3) Please provide all fund documents.

b) Response to Science Editor

Editor Point P 0.1 — 3 Language evaluation: The English-language grammatical presentation needs to be improved to a certain extent. There are many errors in grammar and format, throughout the entire manuscript. Before final acceptance, the authors must provide the English Language Certificate issued by a professional English language editing company. Please visit the following website for the professional English language editing companies we recommend: https://www.wjgnet.com/bpg/gerinfo/240.

Reply: Thanks for your constructive comment. Following this comment, we submitted the revised manuscript to a recommended professional English editing company for language polishing, and a English Language Certificate was provided with the submission. All modifications in the revised manuscript were highlighted with yellow shading.

Editor Point P 0.2 — 4 Specific comments: (1) Please provide the Figures cited in the original manuscript in the form of PPT. All text can be edited, including A,B, arrows, etc. With respect to the reference to the Figure, please verify if it is an original image created for the manuscript, if not, please provide the source of the picture and the proof that the Figure has been authorized by the previous publisher or copyright owner to allow it to be redistributed. All legends are incorrectly formatted and require a general title and explanation for each figure. Such as Figure 1 title. A: ; B: ; C: . (2) Please obtain permission for the use of picture(s). (3) Please provide all fund documents.

Reply: Thank you for your careful comments. We can confirm that the Figures referenced in the manuscript are original. Following this comment, we will include a revised legend format for the Figures in the form of a PPT file when submitting the revised manuscript. Additionally, we will upload the fund support documents.

3 Response to Reviewers

a) Reviewers' Comments

Reviewer #1: Scientific Quality: Grade A (Excellent) Language Quality: Grade A (Priority publishing) Conclusion: Accept (High priority) Specific Comments to Authors: The manuscript presented is very well written and the authors carried out a thorough evaluation of the available data and bring important results for the management of patients with chronic liver disease and cirrhosis, that is, at risk of developing malignant hepatic neoplasms.

b) Response to Reviewers

We sincerely appreciate your positive feedback, and we feel honored by your high praise and constructive comments. Your guidance and encouragement inspire us to continuously enhance the scientific and language quality of our paper.