



PEER-REVIEW REPORT

Name of journal: *World Journal of Gastrointestinal Surgery*

Manuscript NO: 107610

Title: Genetically engineered mouse models in gastric precancerous lesions research

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 07838429

Position: Peer Reviewer

Academic degree and professional title: PhD, Postdoctoral Fellow

Reviewer's Country/Territory: Pakistan

Author's Country/Territory: China

Manuscript submission date: 2025-03-27

Reviewer chosen by: Hong-Xin Jiang

Reviewer accepted review: 2025-03-31 03:59

Reviewer performed review: 2025-03-31 19:32

Review time: 15 Hours

Content to be reviewed	Does the manuscript's content fall within the scope of the journal? Yes Is there any Key Word that is not included in the manuscript title? No Do authors' affiliations correspond to the content of the manuscript? Yes Does the Abstract contain the contents of each part of the manuscript (IMRaD)? Yes Are the Key Words complete? Yes Is the content of the Introduction adequate? Yes
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Is the content of the Materials and Methods complete?

Not Applicable

Is the description of the experiments clear and complete? **Not Applicable**

Are the experimental data presented in the manuscript's biostatistics content reliable? **Not Applicable**

Are the experimental data of the Results true and reliable? **Not Applicable**

Are the quality and resolution of the images up to standard? **Yes**

Do the selection and design of the figures and tables follow the principles of necessity and clarity? **Yes**

Is there any duplication between various parts of the manuscript and between the main text and the content presented in the figures and tables? **No**

Are the figures and tables numbered consecutively in the order in which they appear in the manuscript? **Yes**

Is the content of the Discussion reasonable? **Yes**

Is the Conclusion reasonable? **Yes**

Are all references necessary and reasonable? **Yes**

Do authors omit important references? **No**

Are all references related to the topic of the manuscript? **Yes**

Do authors only cite their own earlier publications? **No**

Is the manuscript's text correct, concise, and clear? **Yes**

Will the manuscript's content be of interest to readers? **Yes**

Are additional experiments needed for the study? **No**

Does the research scope comply with ethics? **Not**



	Applicable
Scientific quality	Grade B (Very good)
Novelty of this manuscript	Grade C (Good)
Creativity or innovation of this manuscript	Grade B (Very Good)
Scientific significance of the conclusion in this manuscript	Grade B (Very Good)
Language quality	Grade B (Very good)
Does this manuscript describe a study of the existing knowledge system?	Yes
Does this manuscript report a revolutionary innovation?	No
Does this manuscript report an unconventional innovation?	No
Conclusion	Minor revision
Re-review	Yes
Peer-reviewer statements	Peer-Review: Anonymous
	Conflicts-of-Interest: No

SPECIFIC COMMENTS TO AUTHORS

Comments to authors Thank you for the opportunity to review the manuscript "Genetically Engineered Mouse Models in Gastric precancerous lesions Research: A Review". This review provides valuable insights into key molecular events, genetic alterations, and their interaction with environmental factors, particularly Helicobacter species. The discussion on gender-specific differences, strain variations, and the potential of microbiome research further enhances the review's depth and clinical relevance. Moreover, I have some suggestions for the authors to improve the content of



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this article further; 1. While the article is well-structured, the language contains minor grammatical and syntactical errors that can be refined for better clarity. A thorough language review or professional proofreading will improve the readability and fluency of this manuscript. 2. The review does an excellent job of summarizing GEMMs. Still, it would benefit from a more critical evaluation of their limitations and how they compare to other available models (e.g., organoid models or patient-derived xenografts). 3. Revise the keywords section and do not add abbreviations in the keywords. 4. Suggesting specific improvements in GEMMs (e.g., refining genetic modifications to mimic human conditions better) would strengthen the review. 5. The Figures are of excellent quality, and the legends are self-explanatory. 6. Add a detailed title for Table 1. 7. The review mentions sex-based differences but does not explore mechanistic explanations. 8. Expanding on hormonal influences or immune system variations contributing to gender disparities in PLGC would strengthen this section. 9. Some GEMMs have limited translational value due to species differences. 10. A discussion on which GEMMs are most predictive of human PLGC and their clinical applicability would be valuable. 11. While the references are extensive, consider including more recent studies (2023–2024) on novel GEMMs, CRISPR-based models, and microbiome research. 12. Some terms are inconsistently used (e.g., "PLGC," "GEMMs of PLGC," "precancerous lesions"). Consider standardizing these throughout the text. 13. Ensure uniformity in the formatting of gene names (italicized where appropriate) and abbreviations (e.g., "Cldn18" should consistently be "CLDN18" in uppercase).



RE-REVIEW REPORT OF REVISED MANUSCRIPT

Name of journal: *World Journal of Gastrointestinal Surgery*

Manuscript NO: 107610

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Position: Peer Reviewer

Academic degree and professional title: PhD, Postdoctoral Fellow

Reviewer's Country/Territory: Pakistan

Author's Country/Territory: China

Manuscript submission date: 2025-03-27

Reviewer chosen by: Yu Bai

Reviewer accepted review: 2025-04-30 13:03

Reviewer performed review: 2025-04-30 14:07

Review time: 1 Hour

Content to be reviewed	Does the manuscript's content fall within the scope of the journal? Yes Is there any Key Word that is not included in the manuscript title? No Do authors' affiliations correspond to the content of the manuscript? Yes Does the Abstract contain the contents of each part of the manuscript (IMRaD)? Yes Are the Key Words complete? Yes Is the content of the Introduction adequate? Yes
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Will the manuscript's content be of interest to readers?
Yes

Are additional experiments needed for the study? **No**

Does the research scope comply with ethics? **Not
Applicable**



Scientific quality	Grade B (Very good)
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Scientific significance of the conclusion in this manuscript	Grade A (Excellent)
Language quality	Grade A (Excellent)
Does this manuscript describe a study of the existing knowledge system?	Yes
Does this manuscript report a revolutionary innovation?	No
Does this manuscript report an unconventional innovation?	No
Conclusion	Accept
Peer-reviewer statements	Peer-Review: Anonymous
	Conflicts-of-Interest: No

SPECIFIC COMMENTS TO AUTHORS

After a thorough re-review and re-evaluation, I am pleased to recommend this manuscript for further consideration for publication. The authors have successfully addressed all the concerns and comments raised during the first round of revision. Therefore, I accept the manuscript in its revised form and believe it is suitable for publication in this journal.