

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 73407

Title: Microbiome changes in the gastric mucosa and gastric juice in different histological stages of *Helicobacter pylori*-negative gastric cancers

Provenance and peer review: Unsolicited manuscript; externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 06129259

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: South Korea

Author's Country/Territory: China

Manuscript submission date: 2021-11-26

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-11-26 03:58

Reviewer performed review: 2021-11-28 02:43

Review time: 1 Day and 22 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**Peer-reviewer
statements**Peer-Review: [☒] Anonymous [☐] OnymousConflicts-of-Interest: [☐] Yes [☒] No**SPECIFIC COMMENTS TO AUTHORS**

The manuscript is focused on H. pylori negative patients and determined gastric microbiome dysbiosis across stages of HPNGC and the difference of bacterial communities between gastric mucosa and juice. The designed of the study is very good, the biopsy specimens and gastric juice were obtained from patients during upper gastroenterology endoscopic examination or ESD due to precancerous mucosal lesions. They performed 16S rRNA gene analysis of gastric mucosal and juice samples and bioinformatic analyses. The results are excellent, data of 134 H. pylori negative patients has been well analyzed. They found that in the negative phase of H. pylori, the structure of the gastric microbial community changes along the SG-AG-IM-Dys-GC stage, and the bacterial community of gastric juice differed from that of the gastric mucosa, and HPNGC and its precancerous lesions have distinct bacterial taxa. This is essential for readers to understand the correlation between the diversity of gastric microbiota and the development of gastric cancer. I recommend accepting this manuscript for publication after a minor editing.

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Manuscript NO: 73407

Title: Microbiome changes in the gastric mucosa and gastric juice in different histological stages of *Helicobacter pylori*-negative gastric cancers

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 06129296

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: South Korea

Author's Country/Territory: China

Manuscript submission date: 2021-11-26

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-11-26 03:59

Reviewer performed review: 2021-11-29 07:16

Review time: 3 Days and 3 Hours

Scientific quality	<input checked="" type="radio"/> Grade A: Excellent <input type="radio"/> Grade B: Very good <input type="radio"/> Grade C: Good <input type="radio"/> Grade D: Fair <input type="radio"/> Grade E: Do not publish
Language quality	<input type="radio"/> Grade A: Priority publishing <input checked="" type="radio"/> Grade B: Minor language polishing <input type="radio"/> Grade C: A great deal of language polishing <input type="radio"/> Grade D: Rejection
Conclusion	<input type="radio"/> Accept (High priority) <input type="radio"/> Accept (General priority) <input checked="" type="radio"/> Minor revision <input type="radio"/> Major revision <input type="radio"/> Rejection
Re-review	<input checked="" type="radio"/> Yes <input type="radio"/> No

**Peer-reviewer
statements**Peer-Review: ☒ Anonymous ☐ OnymousConflicts-of-Interest: ☐ Yes ☒ No**SPECIFIC COMMENTS TO AUTHORS**

This study is a retrospective analysis that focused on investigating the gastric microbiome dysbiosis across stages of HPNGC and the difference of bacterial communities between gastric mucosa and juice. This study contains merit for advancing the therapy of gastric cancer and the illustrations help the readers to make a more understanding of the study; however, some concerns have been noted including: 1. Please add a structured abstract according to the required format and it should show a summary of the content of your manuscript. 2. If possible, it is best to add the brands of reagents and instruments used in the Materials and Methods. 3. The format of references should be modified. Otherwise, this is a very good paper and CAN BE CONSIDERED FOR PUBLICATION. Regards

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Title: Microbiome changes in the gastric mucosa and gastric juice in different histological stages of *Helicobacter pylori*-negative gastric cancers

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 06129262

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: Reviewer_Country

Author's Country/Territory: China

Manuscript submission date: 2021-11-26

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-11-26 03:58

Reviewer performed review: 2021-12-01 08:21

Review time: 5 Days and 4 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Peer-reviewer statements	Peer-Review: [<input checked="" type="radio"/>] Anonymous [<input type="radio"/>] Onymous Conflicts-of-Interest: [<input type="radio"/>] Yes [<input checked="" type="radio"/>] No
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SPECIFIC COMMENTS TO AUTHORS

The article is in generally well done. 1- The manuscript adequately described the background, presented status and significance of the study. 2- The manuscript described Materials and methods (e.g., Study Design and Participants, Sampling and Histological Evaluation, DNA Extraction and 16s rRNA Gene Sequencing, 16S rRNA Gene Sequencing Data Processing, Bioinformatic Analysis, Network Analysis of core microbes and Data Analysis, etc.) in adequate detail. 3- The research objectives are achieved by the experiments used in this study. This study selected 56 SG, 9 AG, 27 IM, 29 Dys and 13 GC with H. pylori negative to explore gastric microbiome dysbiosis across stages of HPNGC and the difference of bacterial communities between gastric mucosa and juice. 4- The manuscript interpreted the findings adequately and appropriately, highlighting the key points concisely, clearly and logically. 5- Manuscript included sufficient, good quality Figures and Tables. 6- The manuscript cited appropriately the latest, important and authoritative references in the introduction and discussion sections. However, the format of the references needs to be revised. 7- The manuscript is well, concisely and coherently organized and presented and the style, language and grammar are accurate and appropriated. However, further editing and proofreading are needed to maintain the best sense of reading.