

### PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 81153

Title: Comparison of genomic and transcriptional microbiome analysis in gastric cancer

patients and healthy individuals

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 04970307

**Position:** Peer Reviewer

Academic degree: MMed

Professional title: Associate Chief Physician, Surgeon, Surgical Oncologist

Reviewer's Country/Territory: China

Author's Country/Territory: Lithuania

Manuscript submission date: 2022-10-27

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-10-29 10:05

Reviewer performed review: 2022-11-04 02:48

Review time: 5 Days and 16 Hours

Scientific quality	[Y] Grade A: Excellent [] Grade B: Very good [] Grade C: Good [] Grade D: Fair [] Grade E: Do not publish
Language quality	[Y] Grade A: Priority publishing [] Grade B: Minor language polishing [] Grade C: A great deal of language polishing [] Grade D: Rejection
Conclusion	[Y] Accept (High priority) [] Accept (General priority) [] Minor revision [] Major revision [] Rejection
Re-review	[Y]Yes []No



Peer-reviewer	Peer-Review: [Y] Anonymous [] Onymous
statements	Conflicts-of-Interest: [ ] Yes [Y] No

#### SPECIFIC COMMENTS TO AUTHORS

The authors characterized the microbiota of GC and compared them with that in normal controls and adjacent tissues, at both gene and transcript level. It is an interesting and hot topic. The study was excellently designed and performed perfectly. The writing, tables and figures are all present well. I suggest that this manuscript meets the requirement of publication.



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Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05469117

Position: Editorial Board

Academic degree: PhD

Professional title: Adjunct Professor, Chief Physician, Deputy Director

Reviewer's Country/Territory: China

Author's Country/Territory: Lithuania

Manuscript submission date: 2022-10-27

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-11-06 18:10

Reviewer performed review: 2022-11-08 18:27

Review time: 2 Days

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish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



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Peer-reviewer	Peer-Review: [Y] Anonymous [] Onymous
statements	Conflicts-of-Interest: [ ] Yes [Y] No

#### SPECIFIC COMMENTS TO AUTHORS

Thank you for inviting me to evaluate the Case Control Study titled " Comparison of genomic and transcriptional microbiome analysis in gastric cancer patients and healthy individuals". It is an interesting paper, the authors utilized a gastric cancer (GC) model to elaborate on the choice of modality and its effects on differences between patients with gastric cancer and control. For the comparison they not only applied the comparison to the healthy controls, but also compared the differences between tumor and adjacent tissues using 16s rRNA genome and transcript sequencing. Their study showed that bacterial 16S rRNA gene and 16S rRNA transcript sequencing results are not interchangeable. Only a small number of bacterial sequences overlapped between 16S rRNA gene and 16S rRNA transcript's sequencing. Profile of bacterial differences between case (GC) and control depended on sequencing modality. Analysis at 16S rRNA transcript level allowed us to identify rarer bacteria species and was more sensitive to reveal associations with clinical characterizations. Interestingly, the differences between tumor and adjacent tissues was of the little value in particular due to interindividual variation as compared to healthy controls. The paper is well arranged and the logic is clear, and. The cited literature is comprehensive and modern. The provided figure and tables are well composed and understandable. The quality of language of the manuscript is quite acceptable for me. So, I recommend to you that this manuscript mayd be accepted. There are a question for author: As they found the differences between tumor and adjacent tissues was of the little value in particular due to interindividual variation as compared to healthy controls. Why is the he bacterial 16S rRNA gene V1-V2 region tested instead of the commonly used V3-V4 region or V4-V5 region? Is it related to



the lack of specificity of the variable region detected?