

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastrointestinal Oncology*

Manuscript NO: 81468

Title: Genetic heterogeneity of colorectal cancer and the microbiome

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 03538879

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Chief Doctor, Professor

Reviewer's Country/Territory: China

Author's Country/Territory: Russia

Manuscript submission date: 2022-11-10

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-11-14 00:40

Reviewer performed review: 2022-11-14 01:22

Review time: 1 Hour

Scientific quality	<input checked="" type="checkbox"/> Grade A: Excellent <input 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 Grade E: Do not publish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 checked="" type="checkbox"/> Grade A: Priority publishing <input 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 checked="" type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Peer-reviewer	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous

statements

Conflicts-of-Interest: [] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

The majority of CRCs are derived from polyps. During this process, intestinal microbiomes and their metabolites play an important role. This work systematically reviewed the changes of intestinal microbiomes and their metabolites during the progress of CRC, the alteration of intestinal microenvironment might aggravate the inflammation of intestinal mucosa, leading to changes in the proliferation of intestinal epithelial cells and intestinal mucosal immunity. In addition, certain gene mutations and epigenetic changes are involved in CRC development. These insights will be helpful for the study of CRC heterogeneity and the development of new treatment methods and strategies.

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Reviewer's code: 06395588

Position: Peer Reviewer

Academic degree: PhD

Professional title: Doctor

Reviewer's Country/Territory: China

Author's Country/Territory: Russia

Manuscript submission date: 2022-11-10

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-11-10 15:24

Reviewer performed review: 2022-11-21 17:03

Review time: 11 Days and 1 Hour

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input checked="" type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
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statements

Conflicts-of-Interest: [] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

This paper is very meaningful. However, there are still some problems that need to be improved. Major modifications are required. 1 In the introduction, there are many words about the relationship between diet and colorectal cancer. However, the title of the article is: Genetic heterogeneity of colorectal cancer and microbiome. What is the relationship between the introduction and the theme of the article? Introduction section seems to be off the subject. 2. The discussion on "GENETIC HETEROGENEITY OF COLORECTAL CANCER" is relatively simple. Enrich the relevant content is necessary.

3 The title of the article is " Genetic heterogeneity of colorectal cancer and microbiome ". However, the relationship between microbiome and heterogeneity is unclear in this manuscript. In this way, it seems that the manuscript just pieced together the two contents of microbiome and heterogeneity. The manuscript seems lost its integrity. 4 The last part of the manuscript "MICROBIOTA AND PROGRESSION OF COLORECTAL CANCER" seems to be the continuation of the previous discussion on microbiome, and it seems inappropriate to place it in this position. 5 It is suggested to strengthen the discussion on the relationship and mechanism of microbiome involvement in the formation of colorectal cancer heterogeneity, so as to increase the readability and scientificity of the manuscript.

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Reviewer's code: 05569322

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Doctor, Surgeon, Surgical Oncologist

Reviewer's Country/Territory: China

Author's Country/Territory: Russia

Manuscript submission date: 2022-11-10

Reviewer chosen by: Dong-Mei Wang

Reviewer accepted review: 2022-11-27 07:29

Reviewer performed review: 2022-12-08 05:24

Review time: 10 Days and 21 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" 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
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statements

Conflicts-of-Interest: [] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

Very good work with comprehensive content, while some questions as below: 1:This review mainly introduces the role of gut microbes in the occurrence and development of colorectal cancer. So, could the authors put microbes in the front of the title? 2:It is mentioned in the article that the types of intestinal microorganisms in patients with colorectal cancer will change. So, what is the reason for the change? 3: The article mentions that the small intestine rarely develops cancer. The reason may be related to the presence of strong innate immunity in the small intestine. So, does innate immunity play a major role in the development of colorectal cancer?Is there a relationship between gut microbes and tumor immunity?