PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 90034

Title: MicroRNAs in hepatocellular carcinoma treatment: Charting the path forward

Provenance and peer review: Unsolicited manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer’s code: 03017455

Position: Peer Reviewer

Academic degree: PhD

Professional title: Professor

Reviewer’s Country/Territory: China

Author’s Country/Territory: United States

Manuscript submission date: 2023-11-21

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-11-21 06:46

Reviewer performed review: 2023-11-21 07:28

Review time: 1 Hour

Scientific quality

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<tr>
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<th>Grade A: Excellent</th>
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<th>Grade B: Very good</th>
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<td>Grade D: Fair</td>
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Novelty of this manuscript

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<td>Grade D: No novelty</td>
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Creativity or innovation of this manuscript

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<td>Grade D: No creativity or innovation</td>
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SPECIFIC COMMENTS TO AUTHORS
The manuscript discusses the microRNAs in hepatocellular carcinoma treatment. The title of the study is promising and could throw light on this field for future studies, but as potential points for improvement, the authors may consider the following items: 1. It is suggested appropriately increase the current clinical application of the interactions between miRNAs and protein in hepatocellular carcinoma. 2. Some more information on the limitations and future perspectives of interactions between miRNAs and hepatocellular carcinoma could be mentioned. 3. It is suggested to add a supplementary figure with a graphic abstract which could better clarify the significance of this study. 4. Some important studies regarding the miRNAs in hepatocellular carcinoma should be cited and discussed. For example, PMID: 37744274, PMID: 37105392, PMID: 35858900.
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**Title:** MicroRNAs in hepatocellular carcinoma treatment: Charting the path forward  
**Provenance and peer review:** Unsolicited manuscript; Externally peer reviewed  
**Peer-review model:** Single blind  
**Reviewer’s code:** 04940884  
**Position:** Editorial Board  
**Academic degree:** PhD  
**Professional title:** Full Professor  
**Reviewer’s Country/Territory:** China  
**Author’s Country/Territory:** United States  
**Manuscript submission date:** 2023-11-21  
**Reviewer chosen by:** AI Technique  
**Reviewer accepted review:** 2023-12-13 01:44  
**Reviewer performed review:** 2023-12-22 00:50  
**Review time:** 8 Days and 23 Hours

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SPECIFIC COMMENTS TO AUTHORS
This manuscript offers a well-structured and informative review, providing a balanced perspective on the current state and future potential of miRNA-based interventions in HCC. The analysis of miRNA roles in promoting and suppressing HCC, particularly the discussion on miR-122 and miR-192, demonstrates insightful understanding. The discussion of miR-223 and its impact on liver diseases, along with the dual roles of miR-192 as both a tumor suppressor and oncogene, adds depth to the review. Several suggestions have been proposed with the goal of enhancing the manuscript's quality and readability. 1) While the introduction provides a general understanding of the importance of HCC, it could further emphasize the specific significance of the research to spark reader interest. Consider introducing one or two specific research questions or challenges. 2) No figures or illustrations are provided in the manuscript, which may impact reader comprehension of complex concepts. Adding some diagrams or flowcharts would help visualize the author's points. 3) The conclusion section summarizes current knowledge and provides outlook, but it might be too general. Suggest incorporating specific recommendations or directions in the conclusion to
stimulate further research considerations. 4) When discussing treatment possibilities, the manuscript does not explore other treatment methods or challenges with existing treatments that are relative to miRNA treatment. Including this discussion can make the manuscript more comprehensive. 5) When contemplating the application of miRNA in therapy, the significance of targeted delivery systems cannot be overstated, as they play a crucial role in mitigating potential harm to other organs and tissues. The manuscript additionally addresses and highlights concerns related to targeting precision, toxicity, and the durability of carriers in the sixth and seventh paragraphs under the section titled "Significance of microRNAs." While the manuscript articulates compelling viewpoints, it seems somewhat unprepared for potential counterarguments. Strengthening the manuscript's persuasiveness could be achieved through a more comprehensive examination of potential opposing opinions.
RE-REVIEW REPORT OF REVISED MANUSCRIPT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 90034

Title: MicroRNAs in hepatocellular carcinoma treatment: Charting the path forward

Provenance and peer review: Unsolicited manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer’s code: 04940884

Position: Editorial Board

Academic degree: PhD

Professional title: Full Professor

Reviewer’s Country/Territory: China

Author’s Country/Territory: United States

Manuscript submission date: 2023-11-21

Reviewer chosen by: Jing-Jie Wang

Reviewer accepted review: 2024-01-24 01:59

Reviewer performed review: 2024-01-24 04:14

Review time: 2 Hours

| Scientific quality       | [ ] Grade A: Excellent | [ ] Grade B: Very good | [ Y] Grade C: Good |
|                         | [ ] Grade D: Fair      | [ ] Grade E: Do not publish |
| Language quality         | [ ] Grade A: Priority publishing | [ Y] Grade B: Minor language polishing |
|                         | [ ] Grade C: A great deal of language polishing | [ ] Grade D: Rejection |
| Conclusion               | [ ] Accept (High priority) | [ ] Accept (General priority) |
|                         | [ Y] Minor revision    | [ ] Major revision      | [ ] Rejection |
| Peer-reviewer statements | Peer-Review: [ Y] Anonymous | [ ] Onymous |
|                         | Conflicts-of-Interest: [ ] Yes | [ Y] No |
SPECIFIC COMMENTS TO AUTHORS
If feasible, incorporate a graphic abstract in the form of a figure rather than a table to vividly illustrate the significance of this study. Doing so has the potential to elevate the overall impact of the research on the reader.