Name of journal: *World Journal of Hepatology*

Manuscript NO: 78466

Title: Immunotherapy for hepatocellular carcinoma: a promising therapeutic option for advanced disease

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer’s code: 05267231

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Chief Physician

Reviewer’s Country/Territory: Greece

Author’s Country/Territory: South Korea

Manuscript submission date: 2022-07-04

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-07-25 03:24

Reviewer performed review: 2022-08-02 14:46

Review time: 8 Days and 11 Hours

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<th>Scientific quality</th>
<th>[ ] Grade A: Excellent</th>
<th>[ ] Grade B: Very good</th>
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<th>Language quality</th>
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<tr>
<th>Conclusion</th>
<th>[ ] Accept (High priority)</th>
<th>[ ] Accept (General priority)</th>
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<td></td>
<td>[ ] Minor revision</td>
<td>[ ] Major revision</td>
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| Re-review | [ ] Yes | [ ] No |
SPECIFIC COMMENTS TO AUTHORS

The abstract is clear. The English language is excellent. I want to congratulate the authors on this work. I am impressed by the balanced structure and the detailed approach to such a complicated issue. The reference is up-to-date. I do suggest a high-priority publication. The only minor concern I have to indicate is that the tables are not informative enough and must be revised. Authors should also include further information (number of included patients, outcomes-survival, p-values) for each study.
Name of journal: World Journal of Hepatology

Manuscript NO: 78466

Title: Immunotherapy for hepatocellular carcinoma: a promising therapeutic option for advanced disease

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer’s code: 06307934

Position: Peer Reviewer

Academic degree: MD

Professional title: N/A

Reviewer’s Country/Territory: China

Author’s Country/Territory: South Korea

Manuscript submission date: 2022-07-04

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-08-03 12:53

Reviewer performed review: 2022-08-04 09:01

Review time: 20 Hours

Scientific quality
[ ] Grade A: Excellent  [ ] Grade B: Very good  [ ] Grade C: Good
[ ] Grade D: Fair  [ ] Grade E: Do not publish

Language quality
[ ] Grade A: Priority publishing  [ ] Grade B: Minor language polishing
[ ] Grade C: A great deal of language polishing  [ ] Grade D: Rejection

Conclusion
[ ] Accept (High priority)  [ ] Accept (General priority)
[ ] Minor revision  [ ] Major revision  [ ] Rejection

Re-review
[ ] Yes  [ ] No
SPECIFIC COMMENTS TO AUTHORS

The authors systematically introduce several state-of-the-art immunotherapies for the treatment of hepatocellular carcinoma, summarizing the perspectives for overcoming the limitations, and propose future prospects. My comments are as follows: 1. The limitations of vaccine therapy need to be clarified. 2. Simple conclusions and lack of unique insights. 3. Some references need to be cited, such as “The tumor microenvironment (TME) of HCC is the result of complex interactions between hepatic non-parenchymal resident cells, tumor cells, immune cells, and tumor-associated fibroblasts. The TME has important effects on all signaling molecules, such as cytokines and chemokines, as well as other paracrine factors” and “TGFβ is abundant in the HCC TME and is produced by tumor cells, TAM, or Treg cells”. 4. The citation format is incorrect in some places, such as “HCC cells sometimes overexpress some proteins relative to the surrounding healthy tissue; this is the case for glypican-3 (GPC3) [104]”. 5. Please provide the full name of MHC II and CTL.
Name of journal: *World Journal of Hepatology*

Manuscript NO: 78466

Title: Immunotherapy for hepatocellular carcinoma: a promising therapeutic option for advanced disease

**Provenance and peer review:** Invited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer’s code:** 05569437

**Position:** Editorial Board

**Academic degree:** MD, PhD

**Professional title:** Adjunct Professor, Attending Doctor, Postdoctoral Fellow, Surgical Oncologist

**Reviewer’s Country/Territory:** Italy

**Author’s Country/Territory:** South Korea

**Manuscript submission date:** 2022-07-04

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-08-03 17:58

**Reviewer performed review:** 2022-08-10 10:54

**Review time:** 6 Days and 16 Hours

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**Conclusion**

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SPECIFIC COMMENTS TO AUTHORS

In this well written manuscript, the authors review the available evidence concerning the use of immunotherapy treatments for patients affected by HCC. After resuming the physio-pathological mechanisms which regulate the liver immune system and the development of HCC, the authors focus on different immunotherapy strategies for HCC patients, including targeted monoclonal antibodies, vaccine therapy, adoptive cell therapy, and combination of immunotherapy with existing oncologic strategies, including TACE, RFA, chemotherapy. I have only a comment, concerning the manuscript title: given that the majority of the studies cited in this manuscript concerns immunotherapy as a treatment strategy for advanced unresectable, not responding to chemotherapy, or not treatable by locoregional strategies HCC, I would suggest the authors to specify in the title that the manuscript focuses on advanced HCC.