

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Gastrointestinal Oncology

**Manuscript NO:** 64568

**Title:** Neoantigen vaccine: An emerging immunotherapy for hepatocellular carcinoma

**Reviewer's code:** 02943023

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Doctor

**Reviewer's Country/Territory:** South Korea

**Author's Country/Territory:** China

**Manuscript submission date:** 2021-02-20

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2021-02-20 09:03

**Reviewer performed review:** 2021-03-05 02:09

**Review time:** 12 Days and 17 Hours

<b>Scientific quality</b>	<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 Grade E: Do not publish
<b>Language quality</b>	<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
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

#### **SPECIFIC COMMENTS TO AUTHORS**

Authors reviewed neoantigens as a promising targets in immunotherapy of HCC. This review offers some novel strategies to solve existing problems in HCC neoantigen research and provide further insights for immunotherapy.

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Gastrointestinal Oncology

**Manuscript NO:** 64568

**Title:** Neoantigen vaccine: An emerging immunotherapy for hepatocellular carcinoma

**Reviewer's code:** 05562744

**Position:** Editorial Board

**Academic degree:** FACS, MD, PhD

**Professional title:** Professor, Senior Scientist

**Reviewer's Country/Territory:** Turkey

**Author's Country/Territory:** China

**Manuscript submission date:** 2021-02-20

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2021-03-01 07:48

**Reviewer performed review:** 2021-03-07 10:00

**Review time:** 6 Days and 2 Hours

<b>Scientific quality</b>	<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
<b>Language quality</b>	<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
<b>Conclusion</b>	<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
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## **SPECIFIC COMMENTS TO AUTHORS**

I would like to commend the authors for the diligent work. I believe the manuscript will have a significant impact to the literature. I would like to suggest minor revisions to the authors: 1. In the introduction section, the authors should elaborate on the attempts of immunotherapy in hepatocellular carcinoma and the expected benefits of such an approach. This can continue with the aims statement of the manuscript 2.

“.....Therefore, HCC is a cancer with a median TMB and may have fewer mutation-induced neoantigens than melanoma[10].....” this is actually a repeat statement that has been expressed before during the general information regarding neoantigens. 3. “The above results suggest that the process used for detection of mutation-induced neoantigens in melanoma may not be ideal for HCC mutation-induced neoantigens.” Regarding this statement , do the authors have a counter proposal or are there any alternative methods that have been developed. 4.

“In comparison, the sampling of circulating tumor cells (CTCs) in human peripheral blood is more convenient. Because of the high heterogeneity of HCC[21], more comprehensive gene information can be provided by CTCs than by tumor samples.” How can we justify this statement. CTC are cells that pass to the systemic circulation through portal vein invasion. They can provide information regarding diagnosis or the prognosis of HCC but to determine neoantigens from these cells would not represent the whole tumor. It will provide an easy access rather than a core biopsy but would negative neoantigens mean that the tumor does not produce any neoantigens or the tumor mutation burden is low? 5.“.....that all of the predictions were failed.” should be corrected as ““.....that all of the predictions had failed.” This is an exciting area of research that should be promoted for future translational research regarding HCC.