

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Hepatology*

**Manuscript NO:** 79672

**Title:** Immunological Classification of Hepatitis B Virus-Positive Hepatocellular Carcinoma by Transcriptome Analysis

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

**Peer-review model:** Single blind

**Reviewer's code:** 00070191

**Position:** Editorial Board

**Academic degree:** MD

**Professional title:** Professor

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

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

**Manuscript submission date:** 2022-09-05

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-09-06 20:43

**Reviewer performed review:** 2022-09-08 11:33

**Review time:** 1 Day and 14 Hours

Scientific quality	<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 Grade E: Do not publish
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 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
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## SPECIFIC COMMENTS TO AUTHORS

This study aimed to determine the immunological aspect of hepatocellular carcinoma (HCC) in the background of viral hepatitis B (HBV). Unsupervised machine learning has been performed to identify immune-specific subtypes in transcriptomic data. Besides, clinical and molecular features of these subtypes have been compared to provide new insights into tumor immunity and its association with clinical and molecular findings that will be useful in managing these aggressive tumors. The results have demonstrated that such tumors could be classified into two immune-specific subtypes and have significantly different immunity, stromal contents, tumor purity, stemness, ITH, CNAs, methylation profiles, and survival prognosis. It is concluded that the immune-specific subtyping of HBV+ HCC may provide new biological insights for managing these tumors.

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disease. The authors should inform the readers about the significance of these exciting results. For instance, which specific therapy can be performed in HCC-HBV patients depending on the subtypes? The authors should prepare their manuscript according to the Guidelines of the WJG

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**Reviewer's code:** 06367185

**Position:** Peer Reviewer

**Academic degree:** MSc

**Professional title:** Associate Research Scientist, Lecturer, Researcher

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

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

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**Reviewer chosen by:** AI Technique

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**Review time:** 3 Hours

Scientific quality	<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
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<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
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#### **SPECIFIC COMMENTS TO AUTHORS**

please elaborate the method part(statistical analysis you had conducted).