PEER-REVIEW REPORT

Name of journal: *World Journal of Clinical Oncology*

Manuscript NO: 88835

Title: Establishment of a prognosis predictive model for liver cancer based on the expression of genes in the ubiquitin-proteasome pathway

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 02620104

Position: Peer Reviewer

Academic degree: PhD

Professional title: N/A

Reviewer's Country/Territory: Spain

Author's Country/Territory: China

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Reviewer chosen by: Yu-Lu Chen

Reviewer accepted review: 2023-11-04 16:54

Reviewer performed review: 2023-11-06 21:08

Review time: 2 Days and 4 Hours

Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [ ] Grade C: Good [Y] Grade D: Fair [ ] Grade E: Do not publish
Novelty of this manuscript	[ ] Grade A: Excellent [ ] Grade B: Good [Y] Grade C: Fair [ ] Grade D: No novelty
Creativity or innovation of this manuscript	[ ] Grade A: Excellent [ ] Grade B: Good [Y] Grade C: Fair [ ] Grade D: No creativity or innovation

Scientific significance of the conclusion in this manuscript	[ ] Grade A: Excellent [ ] Grade B: Good [Y] Grade C: Fair [ ] Grade D: No scientific significance
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) [ ] Minor revision [Y] Major revision [ ] Rejection
Re-review	[ ] Yes [Y] No
Peer-reviewer statements	Peer-Review: [ ] Anonymous [Y] Onymous
	Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

In this manuscript, the authors present a prognostic risk model for liver cancer patients, incorporating five genes from the ubiquitin proteasome system. While the topic is of significant relevance and the study yields interesting findings, this is not the inaugural research to offer a prognostic signature rooted in the ubiquitin proteasome system for predicting the patient outcomes in liver cancer. Moreover, there are several critical points that need to be addressed. Major issue: -The Figure 3 (Correlation analysis of expression levels and risk score with clinical parameters) is missing. Instead, the image of Figure 2 is repeated. Minor issues: -In the Background section, the authors should refrain from elaborating on well-established foundational knowledge concerning ubiquitin. Instead, a comprehensive elucidation of liver cancer diagnostics would be highly beneficial. -The authors should ensure to properly reference and discuss the following studies that bear direct relevance to the current work: -Zhang J, Liu L, Wang Z, Hou M, Dong Z, Yu J, Sun R and Cui G. Ubiquitin-proteasome system-based signature to predict the prognosis and drug sensitivity of hepatocellular carcinoma. Front. Pharmacol. (2023) 14:1172908. doi: 10.3389/fphar.2023.1172908 -Liu, Zy., Li, Yh., Zhang,

Qk. et al. Development and validation of a ubiquitin–proteasome system gene signature for prognostic prediction and immune microenvironment evaluation in hepatocellular carcinoma. J Cancer Res Clin Oncol (2023) 149, 13363–13382. https://doi.org/10.1007/s00432-023-05189-w -The authors should consider showing a volcano plot of DEGs between liver cancer and normal samples in the enrichment analysis. -In the Discussion section, the sentence "However, there is no report on the effect of PSMA8 expression level on the development of tumors." should be reconsidered, since there are two studies that relate the expression of PSMA8 and the development of tumors: Wang Z, Huang C, Wu J, Zhang H, Shao Y and Fu Z. Analysis of the Prognostic Significance and Immune Infiltration of the Amino Acid Metabolism-Related Genes in Colon Adenocarcinoma. Front. Genet. (2022) 13:951461. doi: 10.3389/fgene.2022.951461; and Chiao C-C, Liu Y-H, Phan NN, An Ton NT, Ta HDK, Anuraga G, Minh Xuan DT, Fitriani F, Putri Hermanto EM, Athoillah M, et al. Prognostic and Genomic Analysis of Proteasome 20S Subunit Alpha (PSMA) Family Members in Breast Cancer. Diagnostics. (2021) 11(12):2220. https://doi.org/10.3390/diagnostics11122220, where high PSMA8 expression levels were associated with good prognoses.