

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Gastroenterology*

**Manuscript NO:** 73077

**Title:** Radiomics Signature: A Potential Biomarker for  $\beta$ -Arrestin1 Phosphorylation Prediction in Hepatocellular Carcinoma

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

**Peer-review model:** Single blind

**Reviewer's code:** 00505584

**Position:** Editorial Board

**Academic degree:** FACS, MD

**Professional title:** Full Professor, Professor, Surgical Oncologist

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

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

**Manuscript submission date:** 2021-11-09

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2021-11-09 13:18

**Reviewer performed review:** 2021-11-12 14:11

**Review time:** 3 Days

Scientific quality	<input checked="" type="radio"/> Grade A: Excellent <input type="radio"/> Grade B: Very good <input type="radio"/> Grade C: Good <input type="radio"/> Grade D: Fair <input type="radio"/> Grade E: Do not publish
Language quality	<input checked="" type="radio"/> Grade A: Priority publishing <input type="radio"/> Grade B: Minor language polishing <input type="radio"/> Grade C: A great deal of language polishing <input type="radio"/> Grade D: Rejection
Conclusion	<input type="radio"/> Accept (High priority) <input type="radio"/> Accept (General priority) <input checked="" type="radio"/> Minor revision <input type="radio"/> Major revision <input type="radio"/> Rejection
Re-review	<input checked="" type="radio"/> Yes <input type="radio"/> No

<b>Peer-reviewer statements</b>	Peer-Review: [ <input type="checkbox"/> ] Anonymous [ <input checked="" type="checkbox"/> ] Onymous Conflicts-of-Interest: [ <input type="checkbox"/> ] Yes [ <input checked="" type="checkbox"/> ] No
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## SPECIFIC COMMENTS TO AUTHORS

This is a well-written and interesting article examining the role of radiomics as a potential biomarker for  $\beta$ -Arrestin1 phosphorylation prediction in patients with Hepatocellular Carcinoma. Although MVI was analyzed in your study, no mention of this previous paper that created a radiomics nomogram to help predict MVI. Please reference this in your paper. Could this nomogram have affected your results? Ma X, Wei J, Gu D, Zhu Y, Feng B, Liang M, Wang S, Zhao X, Tian J. Preoperative radiomics nomogram for microvascular invasion prediction in hepatocellular carcinoma using contrast-enhanced CT. Eur Radiol. 2019 Jul;29(7):3595-3605. doi: 10.1007/s00330-018-5985-y. Epub 2019 Feb 15. PMID: 30770969. Another paper on Radiomics and MVI prediction also includes: Xu X, Zhang HL, Liu QP, Sun SW, Zhang J, Zhu FP, Yang G, Yan X, Zhang YD, Liu XS. Radiomic analysis of contrast-enhanced CT predicts microvascular invasion and outcome in hepatocellular carcinoma. J Hepatol. 2019 Jun;70(6):1133-1144. doi: 10.1016/j.jhep.2019.02.023. Epub 2019 Mar 13. PMID: 30876945. I see you referenced : Wang W, Gu D, Wei J, Ding Y, Yang L, Zhu K, Luo R, Rao SX, Tian J, Zeng M. A radiomics-based biomarker for cytokeratin 19 status of hepatocellular carcinoma with gadoxetic acid-enhanced MRI. Eur Radiol. 2020 May;30(5):3004-3014. doi: 10.1007/s00330-019-06585-y. Epub 2020 Jan 30. PMID: 32002645. Can you discuss how combining these 2 studies may help clinicians in the future? Please explain why you did not include this analysis in your study and how future studies combining findings from both your study and this one may help clinicians. If the authors believe that a study of this kind would not be beneficial, please explain why.

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**Reviewer's code:** 05610821

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Surgeon, Surgical Oncologist

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

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

**Manuscript submission date:** 2021-11-09

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2021-12-09 10:03

**Reviewer performed review:** 2021-12-16 12:41

**Review time:** 7 Days and 2 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" 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 type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

<b>Peer-reviewer statements</b>	Peer-Review: [ <input checked="" type="radio"/> ] Anonymous [ <input type="radio"/> ] Onymous Conflicts-of-Interest: [ <input type="radio"/> ] Yes [ <input checked="" type="radio"/> ] No
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#### **SPECIFIC COMMENTS TO AUTHORS**

Feng C et al provided an interesting retrospective study on the role of radiomics as a marker of  $\beta$ -Arrestin1 Phosphorylation in HCC. The manuscript is well written and the reading enjoyable. I do have a concern regarding the methodology of the study and the selection of patients. The authors included only patients undergoing therapy with sorafenib as an adjuvant therapy after hepatic resection, and tested the CRR model not only for the prediction of  $\beta$ -Arrestin1 Phosphorylation but also for the prediction of overall survival. This is something the model was not built for (and less interesting, as the prognosis is related to the presence to  $\beta$ -Arrestin1 Phosphorylation that can be assessed on the specimen, making a preoperative model is useless in this setting).