

PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 38863

Title: Identification of a five-lncRNA signature to improve prognosis prediction for patients with hepatocellular carcinoma

Reviewer's code: 03646639

Reviewer's country: Japan

Science editor: Ze-Mao Gong

Date sent for review: 2018-04-19

Date reviewed: 2018-04-26

Review time: 7 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input checked="" type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input checked="" type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input type="checkbox"/> General
			<input checked="" type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

The authors investigated potential prognostic lncRNA signatures in HCC. They analyzed the data of 370 HCC patients in The Cancer Genome Atlas (TCGA) to determine a potential lncRNA signature for predicting the survival of HCC patients.

They found that five-lncRNA signature could be used as an independent prognostic biomarker in the prediction of HCC patients' survival. This is an interesting study. I have only minor comments as follows. Comments to authors 1) In the introduction section, it is helpful if authors should clearly state what the purpose of the study is. 2) On page 9, line24, 'LnRNA signatures,,,havebeen' must be 'LnRNA signatures,,,have been'. 1 Title. Does the title reflect the main subject/hypothesis of the manuscript? The title accurately reflects the major topic and contents of the study. 2 Abstract. Does the abstract summarize and reflect the work described in the manuscript? The authors have over a word limit. They should shorten their abstract. 3 Key words. Do the key words reflect the focus of the manuscript? the key words reflect the focus of the manuscript, but authors should choose prognosis or survival. 4 Background. Does the manuscript adequately describe the background, present status and significance of the study? In the introduction section, it is helpful if authors should clearly state what the purpose of the study is. 5 Methods. Does the manuscript describe methods (e.g., experiments, data analysis, surveys, and clinical trials, etc.) in adequate detail? The methods used are appropriate 6 Results. Are the research objectives achieved by the experiments used in this study? What are the contributions that the study has made for research progress in this field? 5-lncRNA signature for predicting the prognosis of HCC patients based on The Cancer Genome Atlas (TCGA) database. The prognostic value of the 5-lncRNA signature was independent of clinicopathological variables. Compared with other two already existing signatures for HCC survival prediction, this 5-lncRNA signature proved better prognostic power. The 5-lncRNA signature could improve the prediction of survival and could be used as a biomarker related to prognosis in HCC patients. 7 Discussion. Does the manuscript interpret the findings adequately and appropriately, highlighting the key points concisely, clearly and logically? Are the findings and their applicability/relevance to the literature stated in a clear and definite manner? Is the

discussion accurate and does it discuss the paper's scientific significance and/or relevance to clinical practice sufficiently? 8 Illustrations and tables. Are the figures, diagrams and tables sufficient, good quality and appropriately illustrative of the paper contents? Do figures require labeling with arrows, asterisks etc., better legends? Figures and tables have good quality. 9 Biostatistics. Does the manuscript meet the requirements of biostatistics? I think it is enough 10 Units. Does the manuscript meet the requirements of use of SI units? Yes 11 References. Does the manuscript cite appropriately the latest, important and authoritative references in the introduction and discussion sections? Does the author self-cite, omit, incorrectly cite and/or over-cite references? References are relevant, and updated. 12 Quality of manuscript organization and presentation. Is the manuscript well, concisely and coherently organized and presented? Is the style, language and grammar accurate and appropriate? The language polishing The style is accurate and appropriate. The language and grammar are with minor language polishing. 13 Research methods and reporting. Authors should have prepared their manuscripts according to manuscript type and the appropriate categories, as follows: (1) CARE Checklist (2013) - Case report; (2) CONSORT 2010 Statement - Clinical Trials study, Prospective study, Randomized Controlled trial, Randomized Clinical trial; (3) PRISMA 2009 Checklist - Evidence-Based Medicine, Systematic review, Meta-Analysis; (4) STROBE Statement - Case Control study, Observational study, Retrospective Cohort study; and (5) The ARRIVE Guidelines - Basic study. Did the author prepare the manuscript according to the appropriate research methods and reporting? I think they conducted well enough. 14 Ethics statements. For all manuscripts involving human studies and/or animal experiments, author(s) must submit the related formal ethics documents that were reviewed and approved by their local ethical review committee. Did the manuscript meet the requirements of ethics? Ethics statements should be included in the manuscript.



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INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ No

BPG Search:

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ No

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Name of journal: World Journal of Gastroenterology

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Reviewer's code: 02539323

Reviewer's country: Reviewer_Country

Science editor: Ze-Mao Gong

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publish	<input type="checkbox"/> Grade D: Rejection	<input checked="" type="checkbox"/> Major revision	<input checked="" type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

In this study, a 5-lncRNA signature was constructed and this improves the prediction of survival and can be used as a biomarker related to the prognosis of HCC patients. The method is not very innovative but the results are potentially useful. However, major



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problems still exist and deserve exact efforts before the work could be accepted. Major comments: 1. As indicated by Figure 6, the new 5-lncRNA signature was better than two existing methods. Although the manuscript has claimed that the data were coming from TCGA, the origins of data have not been clearly stated. Therefore, it is not clear whether they are totally independent. For the development of signature for prediction, this is not acceptable. The signature obtained should be tested in several totally independent datasets so as to ensure that the signature could be generalized.. 2. In Figure 7, although a lot of GO terms related to cell division and cell cycle, they are quite redundant. Moreover, no enrichment of GO terms has been shown. On the other hand, more of the pathways identified by KEGG were metabolism related. Consequently, the functions of these lncRNAs were not clearly defined. More work should be done to look at the functions of these lncRNAs. 3. In Wang Z et al. 2017 (PeerJ), similar signature has been constructed. The aim of this piece of work was similar. I am curious whether there are any overlaps of the lncRNAs of that work with the 5 lncRNAs of this study. If there is no overlap, is there any rationale behind this phenomenon? Could the two signatures be combined to construct an even better signature? Minor comments: 1. In P. 6, I found this sentence "The median survival time for the high-risk group and the low-risk group was 6.811 and 2.096 years, respectively." However, a high risk group should have a shorter survival. 2. Figure 6A and 6B were redundant and therefore unnecessary 3. In Figure 6C, 5LncSig is only slightly, or even not, better than the other signature.

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism



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[Y] No

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[Y] No