PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells
Manuscript NO: 35363
Title: Tracing and targeting cancer stem cells: New venture for personalized molecular cancer therapy
Reviewer's code: 03656588
Reviewer's country: China
Science editor: Jin-Xin Kong
Date sent for review: 2017-07-14
Date reviewed: 2017-07-14

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
[ ] Grade A: Excellent	[ ] Grade A: Priority publishing	Google Search:	[ ] Accept
[ ] Grade B: Very good	[Y] Grade B: Minor language	[ ] The same title	[ ] High priority for
[Y] Grade C: Good	polishing	[ ] Duplicate publication	publication
[ ] Grade D: Fair	[ ] Grade C: A great deal of	[ ] Plagiarism	[ ] Rejection
[ ] Grade E: Poor	language polishing	[Y] No	[ ] Minor revision
	[ ] Grade D: Rejected	BPG Search:	[Y] Major revision
		[ ] The same title	
		[ ] Duplicate publication	
		[ ] Plagiarism	
		[Y] No	

COMMENTS TO AUTHORS

The review highlights the trends and approaches in CSC tracing, isolating, characterizing and targeting. It is important guidance to know about the biological effect of CSCs as the seeds of tumor recurrence. But the review is too simple to illustrate the CSC tracing and targeting in many solid tumors . Because the similar research have recently been published in many papers, it need to be further supplemented by searching the literatures.

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[ ] Grade C: Good		[ ] Duplicate publication	
[ ] Grade D: Fair	[ ] Grade C: A great deal of language polishing	[ ] Plagiarism	[ ] Rejection
[ ] Grade E: Poor		[Y] No	[Y] Minor revision
	[ ] Grade D: Rejected	BPG Search:	[ ] Major revision
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		[ ] Plagiarism	
		[Y] No	

COMMENTS TO AUTHORS

Please having colleagues to read the manuscript and double the check spelling and grammars, for instance: Change "halmarks" to hallmarks (Abstract) The hierarchical model of tumor organization represents a similar, albeit distorted, arrangement of the tumor cells as are their tissues of origin. (Introduction section, line 1 & 2) pancreatic prostate carcinomas, (introduction section, line 9) "scape from" better change to "escape from" (introduction section, line 13 and other sections) …..

PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells
Manuscript NO: 35363
Title: Tracing and targeting cancer stem cells: New venture for personalized molecular cancer therapy
Reviewer's code: 00503405
Reviewer's country: Hungary
Science editor: Jin-Xin Kong
Date sent for review: 2017-07-14
Date reviewed: 2017-07-16

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
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COMMENTS TO AUTHORS

The review manuscript is well written and introduces the current possibilities of cancer stem cell targeting and tracing. However, on major aspect needs further discussion: the elimination of cancer stem cells is pointed out by the author. Is this always necessary? What about to make cancer a chronic longstanding disease by modulating cancer stem cells to be dormant ones? After major revision I suggest to accept the manuscript for publication.

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COMMENTS TO AUTHORS

Comments: This manuscript summarizes the novel methods of tracing CSCs and discusses the hallmarks of CSC identification influenced by the microenvironment or by having imperfect detection markers. In addition, explains the known molecular mechanisms of therapy resistance in CSCs. While the problem is important and the work invested is significant, there are a few issues with the manuscript, as listed below. Major points: (1) "Chemo/radiotherapy resistance in tumor biology" section: This is an important section, which serves to remind readers of potentially importance of CSC on clinical chemo/radiotherapy resistance. However, the paragraph is vaguely described and unclear. The authors could consider presenting the precise cancer treatment, cancer types, the resistance caused by CSCs in a table. (2) "High-throughput methods for the screening of CSCs" section: The authors could consider presenting the methods for the screening of CSCs in a table. (3) The "Targeting CSCs" section are vaguely described

and unclear. Fig.2C showed four important approaches of CSC-targeted therapy. However, in the "Targeting CSCs" section, the author pay much attention to target key signaling pathways. Other three approaches should be precisely described. Additionally, please adjust the structure of this section properly in consistent with the four approaches of CSC-targeted therapy in Fig.2C, such that any reader can easily follow.   Minor points: 1) Abstract sections: it should be "hallmarks", instead of "halmarks". In the second paragraph on page 8, it should be "Niclosamide", instead of "Nikosamide". Please check for potential typos in the rest of paragraphs.

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COMMENTS TO AUTHORS

The paper entitled "Tracing and targeting cancer stem cells: new venture for personalized molecular cancer therapy" addresses rapidly growing field of cancer (tumor) initiating cells also known as a cancer stem cells, their identification and eradication. Author describes recent advances in the understanding of CSCs molecular mechanisms, emergence of specific markers and their combinations. The most interesting issue is the use of old drugs for new indications. The paper is well written however I would recommend to incorporate some really new data on CSCs tracing and targeting, such as 3D approaches (Lloyd-Lewis, B. et al. 2016 Breast Cancer Res), single cell tracing (for example Davis, F.M. et al. 2016 Nat. Commun.) and indeed genome editing approaches to study cancer stem cells. It will certainly make the manuscript modern and more valuable. There are some typos, like "halmark", "nikosamide" that should be corrected.