

## PEER-REVIEW REPORT

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

**Manuscript NO:** 41640

**Title:** Effect of adipose derived mesenchymal stem cells on hepatocellular carcinoma: In vitro inhibition of carcinogenesis

**Reviewer's code:** 03670299

**Reviewer's country:** Italy

**Science editor:** Ruo-Yu Ma

**Date sent for review:** 2018-09-10

**Date reviewed:** 2018-09-11

**Review time:** 1 Day

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 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

Dear Authors, the idea and the project of this manuscript is very interesting because up to now no manuscript focused attention on the possible role of carcinogenesis inhibitors of adipose MSCs versus liver cancer. 1. Apart of this, several points of the paper should

be treated in amore exhaustive manner. In particular, the references used by the authors in the manuscript are often not recent in consideration of that the topic of the paper is constantly updated. 2. In particular, in the Introduction (page 6) an additional reference regarding evolving epidemiology should be cited (Wallace MC et al., Expert Rev Gastroenterol Hepatol. 2015, 9(6):765-79. 3. The references (6,7) used for the description of the markers for the detection of the several stages of HCC are not completely appropriate to the context. On this regard, a more recent paper by Shreya Sengupta and Neehar D Parikh (Hepat Oncol. 2017 Oct; 4(4): 111-122) describes in exhaustive manner the most promising investigational biomarkers and their phase of discovery in HCC. 4. Regarding the methods why the authors use specifically only HepG2 and PLC-PRF-5 ? 5. In the page 9 where the authors describe the microscope observation these is a mistake because authors describe a co-culture of ADMSCs with similar cells (probably the authors refer to HCC cell lines). 6. At page 10 where the authors describe treatment of cancer cells with ADMSCs CM the definition of CCM should be given. 7. The authors should explain the why for the choice of the following dilutions (1:1, 1:5, 1:25) (referred to CMs). 8. In the results (page 15) the authors should report (referring to flow cytometry results) the numbers of SEM without indicate SEM. 9. In the results (page 15) (referring to co-culture experiments) it should be necessary to control the verb form ("reveals" and then "show" should be modified in the past form). 10. In the figure 1 panel B it should be better to insert the panels B-a, B-b, B-c, B-d and B-e on a same line (indicating in the complex positive. In a similar way for the negative markers B-f ....to B-i. The images of differentiation panel C are too small. In addition the authors should indicate the bar and how many times the test of differentiation was repeated. 11. Figure 2, figure 3, figure 4, figure 5 and figure 6 panels are too small. It is difficult to analyze the data reported. 12. In the discussion relative to the potential therapeutic effects of Adipose MSCs in different diseases the authors should indicate

additional references (Saleh F, et al., Curr Stem Cell Res Ther. 2018; Brini AT, et al., Sci Rep. 2017, 29;7(1):9904). 13. In the discussion regarding the interaction between MSCs and tumor the authors should consider the importance of the microenvironment that can modulate MSc role as well described in a paper “Tumor-educated mesenchymal stem cells promote pro-metastatic phenotype” by Hill BS, et al., Oncotarget. 2017, 14;8(42):73296-73311 that the authors should add in the discussion. 14. The authors should control the sentence at the end of page 21 (discussion).

#### **INITIAL REVIEW OF THE MANUSCRIPT**

##### ***Google Search:***

- ☒ [ Y ] The same title
- ☐ [ ] Duplicate publication
- ☐ [ ] Plagiarism
- ☐ [ ] No

##### ***BPG Search:***

- ☐ [ ] The same title
- ☐ [ ] Duplicate publication
- ☐ [ ] Plagiarism
- ☒ [ Y ] No