

ESPS PEER REVIEW REPORT

Name of journal: World Journal of Gastroenterology

ESPS manuscript NO: 13060

Title: Fucosylation is a common type of glycosylation in the cancer stem cell-like phenotype of pancreatic cancer under various conditions

Reviewer code: 02545023

Science editor: Su-Xin Gou

Date sent for review: 2014-08-04 11:13

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CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input checked="" type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> Existing	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	BPG Search:	<input checked="" type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input type="checkbox"/> Existing	<input type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

COMMENTS TO AUTHORS

The manuscript by Terao et al reported an interesting finding that fucosylation is a common oligosaccharide modification in pancreatic cancer CSC-like cells, and increased cellular fucosylation is correlated with drug (such as gemcitabine) resistance. Therefore, the identification of fucosylated glycoproteins derived from pancreatic cancer cells could lead to novel biomarker development for anticancer drug resistance. Overall, the experiments were well done and properly interpreted. Comments/critics: 1). The patterns of lectin blotting in figure 2B, figure 3C and 3D are different which suggests that under different conditions Panc1 cells were able to develop different fucosylation. This phenomenon should be explained/discussed in the manuscript. 2). The authors claimed that fucosylation is “a common type of glycosylation in the cancer stem cell-like phenotype of pancreatic cancer”; however, only ONE pancreatic cancer cell line, Panc1, was used in the whole study. The observations should be confirmed in multiple cell lines in order to draw such a conclusion. In addition, the findings/conclusion could be greatly strengthened, if possible, with using tumor tissues from pancreatic cancer patients or xenografted animal models.

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Title: Fucosylation is a common type of glycosylation in the cancer stem cell-like phenotype of pancreatic cancer under various conditions

Reviewer code: 02544938

Science editor: Su-Xin Gou

Date sent for review: 2014-08-04 11:13

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CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> Existing	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	BPG Search:	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input type="checkbox"/> Existing	<input checked="" type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

COMMENTS TO AUTHORS

The manuscript of Terao et al. "Fucosylation is a common type of..." is a potential interesting report, but at this stage this is a very preliminary study. The main point of authors is that the fucosylation of PDAC cells can be a marker of CSC. From the present work this statement is not evident for me. The author used a very unspecific marker of CSC - CD24 and CD44. The authors must add min. CD33 expression and characterized the CSC as triple (CD24+CD44+CD133+) cells. Another important point is that the authors did not present the sphere-forming assay for the panc1-RG. It must be done to compare the functionality of CSC. The connection between IL-6 production and CSC state is not evident for me. The authors must perform once more the sphere-forming assay and measure the IL-6 production both in monolayer and sphere cells.