

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Gastrointestinal Oncology*

**Manuscript NO:** 89088

**Title:** Mitochondrial carrier homolog 2 increases malignant phenotype of GES-1 cells and promotes proliferation, invasion and migration of gastric cancer cells

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

**Peer-review model:** Single blind

**Reviewer's code:** 03976790

**Position:** Editor-in-Chief

**Academic degree:** DSc, PhD

**Professional title:** Emeritus Professor

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

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

**Manuscript submission date:** 2023-10-20

**Reviewer chosen by:** Yu-Lu Chen

**Reviewer accepted review:** 2023-11-22 08:22

**Reviewer performed review:** 2023-11-29 08:05

**Review time:** 6 Days and 23 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
Creativity or innovation of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation

<b>Scientific significance of the conclusion in this manuscript</b>	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
<b>Language quality</b>	<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
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## SPECIFIC COMMENTS TO AUTHORS

Comments about the manuscript: "Mitochondrial carrier homolog 2 increases malignant phenotype of GES-1 cells and promotes proliferation, invasion and migration of gastric cancer cells" The work presented here concerns research on the role of mitochondrial carrier homolog 2 (MTCH2) involved in the cancerization of gastric cells and in the formation of metastases, a role which is not yet fully understood. For this, the authors studied 65 samples of poorly differentiated gastric cancer tissues with their adjacent tissues; they constructed models of overexpressed and inactivated cells whose proliferation (GES-1 cells), migration and invasion they evaluated by different methods, notably concerning the measurement of mitochondrial function. The results obtained show that MTCH2 can increase the malignant phenotype of GES-1 cells and promote the proliferation and migration of gastric cancer cells by regulating mitochondrial function. This work may thus provide a basis for targeted therapy of gastric cancer cells. This well presented although complex study deserves to be forgotten after some improvements to the manuscript. Here are some minor remarks. Page 5, line 130. Write "Two parallel scratches were made" instead of "Two parallel scratches was made". Page 5, line 136.

“according to the manufacturer’s instruction” is not sufficient: briefly explain the method. Page 6, line 152. Write “Photos were taken under an inverted optical microscope” instead of “Photoes were taken under a inverted optical microscope”. For immunohistochemistry, were there negative controls (without first antibody for example)? Please, explain. Page 6, line 161. “according to the instruction of Mitochondrial Permeability Transition Pore Assay Kit”: briefly give some explanations about this method. Page 7, line 167. “according to the instruction of whole cell lysis assay”: same, briefly give some explanations about this method. Page 8, line 176: I did not find the table 1. Page 11, line 292: write “we” (without a capital letter). Page 20, figure 2. This figure needs a more explanatory legend: each image needs to be explained. For A, B, C, D: what is indicated on the abscissa, on the ordinate? For E, F, G, H: add a scale bar on the images, specify the coloring in the legend, what is expressed in abscissa and ordinate? Page 21, figure 3, page 22, figure 4, page 23, figure 5: same comment as for figure 2; add scale bars to micrographs.