

PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 57903

Title: Advance in metabolism and target therapy in breast cancer stem cells

Reviewer's code: 03670885

Position: Editorial Board

Academic degree: PhD

Professional title: Academic Research, Associate Professor, Research Scientist

Reviewer's Country/Territory: Mexico

Author's Country/Territory: China

Manuscript submission date: 2020-07-01

Reviewer chosen by: AI Technique

Reviewer accepted review: 2020-07-03 17:53

Reviewer performed review: 2020-07-04 00:26

Review time: 6 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 Grade E: Do not publish
Language quality	<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
Conclusion	<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
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	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

The authors made a job to summarize about BCSC. However, since the title of this manuscript claim to analyse the CSC metabolims, I suggest to improve the data and evidences of this topic, even I saw this relevant section too short. The therapeutric treatment to target BSCS was address well done. Also I suggest to include an figure to summarize the manuscript.

PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 57903

Title: Advance in metabolism and target therapy in breast cancer stem cells

Reviewer's code: 03092505

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Assistant Professor

Reviewer's Country/Territory: United States

Author's Country/Territory: China

Manuscript submission date: 2020-07-01

Reviewer chosen by: AI Technique

Reviewer accepted review: 2020-07-02 21:21

Reviewer performed review: 2020-07-09 18:08

Review time: 6 Days and 20 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input checked="" type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<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
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	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

In this review article, the authors attempted to summarize recent advances in breast cancer stem cell's metabolic features and targeted therapies. Although a summary of such new information and recent progresses could be helpful to the research society, this manuscript would be improved if the authors can address the following concerns or comments. The authors listed a number of potential cancer stem cell (CSC) markers, including CD44/CD24, CD133 and ALDH1. However, it is unclear which marker(s) are specific for breast CSCs. What are the advantage and limitations of using these markers for breast CSC analysis? It is advisable to include a table to summarize the type/name of markers, biological functions, methods of analysis, % positive cells in tumor tissues, and source of references. Lower levels of reactive oxygen species (ROS) have been found to be associated with breast CSCs. This could be the result of the metabolic reprogramming of CSCs. The authors should include some of the most recent studies on energy and fatty acid metabolism in CSCs. Some of references cited are a little out of date and not a reflection of the recent advances in the field. It would be helpful if the authors could provide one or two schematic diagrams/figures summarizing the mechanisms of drug resistance in BCSCs and therapeutic approaches to addressing the CSCs-associated clinical problems such as metastasis and tumor recurrence. Some minor issues of English spelling and/or grammars need to be corrected. for examples, "EpCAM has also recently been identified as a marker for BCSCs and is involved in the promotion of bone metastases" on page 4, and "Cancer cell metabolism is characterized by dysregulated glucose metabolism, fatty acid synthesis and glutaminolysis" on page 7.

RE-REVIEW REPORT OF REVISED MANUSCRIPT

Name of journal: World Journal of Stem Cells

Manuscript NO: 57903

Title: Advance in metabolism and target therapy in breast cancer stem cells

Reviewer's code: 03092505

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Assistant Professor

Reviewer's Country/Territory: United States

Author's Country/Territory: China

Manuscript submission date: 2020-07-01

Reviewer chosen by: Ze-Mao Gong

Reviewer accepted review: 2020-09-08 11:35

Reviewer performed review: 2020-09-10 13:42

Review time: 2 Days and 2 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
Language quality	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Peer-reviewer statements	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

The previous comments and concerns have been addressed.