

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Stem Cells

**Manuscript NO:** 65010

**Title:** Stem cells' centrosomes: How can the organelles identified 130 years ago contribute to the future of regenerative medicine?

**Reviewer's code:** 04609834

**Position:** Editorial Board

**Academic degree:** DDS, PhD

**Professional title:** Professor

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

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

**Manuscript submission date:** 2021-03-01

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2021-03-01 08:23

**Reviewer performed review:** 2021-03-13 14:07

**Review time:** 12 Days and 5 Hours

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<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 type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input 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



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## **SPECIFIC COMMENTS TO AUTHORS**

In general, the review is innovative in terms of ideas and topics, and the authors have summarized the existing studies and presented their own views, which have some significance to the field. However, I would like to make some suggestions. 1. As a review, it is certain that the literature published in recent years needs to be cited enough. And in this article, it is suggested that authors need to update the literature. 2. The format of the article I suggest needs to be changed. There are too many paragraphs under the headings, for example, "CENTROSOMES AND ASYMMETRIC STEM DIVISION", so I suggest to create subheadings for discussion to make the organization and format clearer. 3. There are some linguistic errors in the article, so I suggest the authors to check and correct them.

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**Name of journal:** World Journal of Stem Cells

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**Title:** Stem cells' centrosomes: How can the organelles identified 130 years ago contribute to the future of regenerative medicine?

**Reviewer's code:** 05115904

**Position:** Peer Reviewer

**Academic degree:** PhD

**Professional title:** Assistant Professor

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

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

**Manuscript submission date:** 2021-03-01

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2021-03-02 04:22

**Reviewer performed review:** 2021-03-31 01:38

**Review time:** 28 Days and 21 Hours

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<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 type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input 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



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## **SPECIFIC COMMENTS TO AUTHORS**

The review focuses on centrosomes and centrosome primary cilium control the asymmetric cell division of stem cells. The authors also hint that in future this organelle would play a critical role in regenerative medicine. Major comments: • I ran the through plagiarism checking software turnitin, it showed a similarity index of 84% and the software flagged the document for the word replacements that were done in the document to reduce similarity index. The submitted documents is 84% identical to one student paper submitted in University of Thessaly. I give benefit of doubt that one of the authors themselves would have submitted the paper to University of Thessaly. However, it is unethical to submit same paper to two different journals for publication. Authors should give an explanation regarding the Similarity index (SI). • The title seems misleading, authors address the centrosomes are 130 years old, however were identified 130 years ago, but the organelle is much older than 130 years. So kindly modify the title. • Page 6, the authors mention that role of centrosome based on review by Januschke et al 2014, *Semin Cell Dev Biol*. However, this review by Januschke et al was based on original articles. The researchers who uncovered role of centrosomes need to be credited and cited. There are several instances, where authors should cite original articles and not just reviews. • The authors have not described the mechanisms by which centrosomes asymmetric cell division is established. It would help the reader immensely, if authors can incorporate it detailed mechanisms, since the focus is on centrosome and how it affects stem cell function and division. • The studies on asymmetric cell division are mostly from drosophila, since the focus of the review is regenerative medicine, I would assume authors allude to regenerative medicine in humans. In that case, studies who have investigated role of centrosome in asymmetric cell division in mammalian system should be cited. • Authors have given generalized function of



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<https://www.wjgnet.com>

centrosomes, but what protein constitute the centrosome needs to be mentioned. In addition, the studies (drosophila/chick/mice) that have performed knockout/mutations/knockdown of the proteins that make up centrosomes would really make the case for role of centrosomes much stronger. • Authors cited Vestergaard et al 2015, as evidence that OCT4, NANOG and SOX2 co-localized to the cilia. Surprisingly, OCT4, NANOG and SOX2 signal was clearly in nucleus, they show only one cilia per cells, which is curious. Authors have not discussed the strong and weak points of such studies, and I request authors to do the same. • Overall the manuscript seemed like a literature review, the authors have not critically discussed some key references and their results, this review does not ask questions such as how centriole or centrosome proteins are regulated, how are the centrioles duplicated prior to cell division. Reviews also should highlight key questions that need to be investigated and what are the ways the critical questions can be addressed, hence, authors need to incorporate these suggestions.

## RE-REVIEW REPORT OF REVISED MANUSCRIPT

**Name of journal:** World Journal of Stem Cells

**Manuscript NO:** 65010

**Title:** Stem cells' centrosomes: How can the organelles identified 130 years ago contribute to the future of regenerative medicine?

**Reviewer's code:** 05115904

**Position:** Peer Reviewer

**Academic degree:** PhD

**Professional title:** Assistant Professor

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

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

**Manuscript submission date:** 2021-03-01

**Reviewer chosen by:** Chen-Chen Gao

**Reviewer accepted review:** 2021-07-19 05:26

**Reviewer performed review:** 2021-07-20 06:36

**Review time:** 1 Day and 1 Hour

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<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>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

The authors have improved the manuscript but there are some minor issues that need to be addressed. I feel that figures do not depict what the authors have described in the review. The figures seem crude representation. I request authors to provide better quality illustrations. There are some sentences with spelling errors and grammatical errors and these will require rectification for example line no 396,416,425,428,451,455,526,660 and 843.