

## PEER-REVIEW REPORT

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

**Manuscript NO:** 65095

**Title:** Effects of storage media, supplements and cryopreservation methods on quality of stem cells

**Reviewer's code:** 02446101

**Position:** Editorial Board

**Academic degree:** MD, PhD

**Professional title:** Professor, Surgeon

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

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

**Manuscript submission date:** 2021-02-27

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2021-03-01 06:52

**Reviewer performed review:** 2021-03-01 07:08

**Review time:** 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 Grade E: Do not publish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 checked="" type="checkbox"/> Accept (General priority) <input 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**

In this review, the authors summarized the current status quo of stem cell freezing protocols. Then, the authors described the most commonly used cryoprotective agents (CPA) and their effects on stem cells and stem cell function. It provides the systemic and helpful knowledge to the readers. So, acceptance should be recommended for the manuscript.

## PEER-REVIEW REPORT

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

**Manuscript NO:** 65095

**Title:** Effects of storage media, supplements and cryopreservation methods on quality of stem cells

**Reviewer's code:** 05819120

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Doctor

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

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

**Manuscript submission date:** 2021-02-27

**Reviewer chosen by:** Ya-Juan Ma

**Reviewer accepted review:** 2021-03-09 15:14

**Reviewer performed review:** 2021-03-16 20:41

**Review time:** 7 Days and 5 Hours

<b>Scientific quality</b>	<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
<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



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## **SPECIFIC COMMENTS TO AUTHORS**

The review article by Erol et al. offers an overview of different methods, protocols and cryoprotective agents used for the cryoconservation of several types of stem cells. The chemical characteristics of commonly used cryoprotective agents including the disadvantages of the use of DMSO are described. On this basis, the authors offer an overview on the literature with regard to the freezing of Hematopoietic stem cells, Mesenchymal stromal/stem cells and induced pluripotent stem cells. This is complemented with supplementary tables consisting of more detailed information on protocols and commercial freezing media. This review, while not offering groundbreaking science, presents a useful account of a basic, but yet important step of working with stem cells. However, minor points can, or should be improved:

- Some spelling errors are present in the manuscript (e.g. lines 26, 33, 74, 84, 219, 288, 291, 301, 376, 401, 405)
- Some formatting errors are present in the text (e.g. line 210, 272, 303, 323) and regarding capitalization in the references
- In some cases, it is unclear to what exactly a sentence is referring to or it could be improved with additional details (e.g. line 118, 139)
- Including graphs or images would improve the manuscript

If the authors address these, I recommend the manuscript to be published after minor revision.