



## PEER-REVIEW REPORT

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

**Manuscript NO:** 79441

**Title:** Profile of biological characterizations and clinical application of corneal stem/progenitor cells

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

**Peer-review model:** Single blind

**Reviewer's code:** 05818012

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Doctor

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

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

**Manuscript submission date:** 2022-08-21

**Reviewer chosen by:** Dong-Mei Wang

**Reviewer accepted review:** 2022-10-03 13:50

**Reviewer performed review:** 2022-10-13 14:51

**Review time:** 10 Days and 1 Hour

<b>Scientific quality</b>	<input checked="" type="checkbox"/> Grade A: Excellent <input 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 Grade E: Do not publish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 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
<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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No



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<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**

This is an excellent literature review. In this review, the authors describe in detail the anatomical location and characteristics of corneal stem/progenitor cells (including corneal epithelial stem cells, corneal endothelial cell progenitors and corneal stromal stem cells), and discuss the current research progress on the isolation, culture techniques and related molecular markers of various stem cells. It provides a very detailed medical data for researchers in the field of ophthalmology around the world to carry out corneal stem/progenitor cells research and technical development. There is a minor flaw that needs to be fixed. On line 494, it might be more appropriate to add the word "to the" after "related."



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**Peer-review model:** Single blind

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**Position:** Peer Reviewer

**Academic degree:** PhD

**Professional title:** Doctor

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

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

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**Reviewer chosen by:** Dong-Mei Wang

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<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
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<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No



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### **SPECIFIC COMMENTS TO AUTHORS**

This manuscript is very interesting, showing the characteristics of corneal epithelial stem cells, corneal endothelial cell progenitors and corneal stromal stem cells in detail, identified their anatomical features of their location near the limbus of the cornea, discussed a variety of isolation and culture techniques and related molecular markers and summarized their application and potential in treatment. The author has to modify some prepositions and check grammar.



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**Peer-review model:** Single blind

**Reviewer's code:** 05246551

**Position:** Editorial Board

**Academic degree:** BSc, PhD

**Professional title:** Research Assistant Professor

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

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

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**Reviewer performed review:** 2022-10-29 07:40

**Review time:** 8 Days and 17 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 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



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### **SPECIFIC COMMENTS TO AUTHORS**

In the review manuscript entitled: " Profile of biological characterizations and clinical application of corneal stem/progenitor cells" authors provide the characteristics of corneal epithelial stem cells, corneal endothelial cell progenitors and corneal stromal stem cells in detail, as well as their isolation and their culture techniques. Also, they refer to the specific molecular markers that characterize corneal stem/progenitor cells. Moreover, they emphasize their therapeutic value in regenerative medicine for corneal transplantation and summarize all the techniques for bioengineered corneal grafts. The manuscript is well written, and it is worthy to be published in the journal " World Journal of Stem Cells" as it meets the criteria and the standards.