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

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<th>Scientific quality</th>
<th>[ ] Grade A: Excellent</th>
<th>[ ] Grade B: Very good</th>
<th>[ ] Grade C: Good</th>
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<th>Conclusion</th>
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<td>[ ] Minor revision</td>
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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."
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: 05823102

Position: Peer Reviewer

Academic degree: PhD

Professional title: Doctor

Reviewer’s Country/Territory: Egypt

Author’s Country/Territory: China

Manuscript submission date: 2022-08-21

Reviewer chosen by: Dong-Mei Wang

Reviewer accepted review: 2022-10-16 16:22

Reviewer performed review: 2022-10-26 18:06

Review time: 10 Days and 1 Hour

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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.
**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:** 05246551

**Position:** Editorial Board

**Academic degree:** BSc, PhD

**Professional title:** Research Assistant Professor

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

**Author’s Country/Territory:** China

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

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

**Reviewer accepted review:** 2022-10-20 13:48

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

**Review time:** 8 Days and 17 Hours

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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.