

PEER-REVIEW REPORT

Name of journal: *World Journal of Stem Cells*

Manuscript NO: 81791

Title: Bone marrow mesenchymal stem cell-derived exosomal microRNAs target PI3K/ Akt signaling pathway to potentially promote tendon-bone healing

Provenance and peer review: Unsolicited manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05152215

Position: Peer Reviewer

Academic degree: N/ A

Professional title: N/ A

Reviewer's Country/Territory: China

Author's Country/Territory: China

Manuscript submission date: 2022-11-23

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-11-25 02:53

Reviewer performed review: 2022-11-27 08:51

Review time: 2 Days and 5 Hours

Scientific quality	☐ Grade A: Excellent ☐ Grade B: Very good ☒ Grade C: Good ☐ Grade D: Fair ☐ Grade E: Do not publish
Language quality	☐ Grade A: Priority publishing ☒ Grade B: Minor language polishing ☐ Grade C: A great deal of language polishing ☐ Grade D: Rejection
Conclusion	☐ Accept (High priority) ☒ Accept (General priority) ☐ Minor revision ☐ Major revision ☐ Rejection
Re-review	☒ Yes ☐ No

Peer-reviewer statements	Peer-Review: [☒] Anonymous [☐] Onymous
	Conflicts-of-Interest: [☐] Yes [☒] No

SPECIFIC COMMENTS TO AUTHORS

The manuscript entitled "A comprehensive analysis of bone marrow mesenchymal stem cells-derived exosomal miRNAs reveals PI3K/Akt signaling pathway as a potential target to promote tendon-bone healing" by Fangqi Li, et al. use bioinformatics analyzing found two most important miRNAs which may lead to tendon-bone healing promotion effect by mesenchymal stem cells-derived exosome. They are miR-144 and miR-23b. Further more, the two exosomal miRNAs can promote fibroblast cell lines proliferation, migration and so on. It may through PTEN-AKT pathway. However, they did not do in vivo test. The in vivo effect of two exosomal miRNAs should be verified in animal models.

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Reviewer's code: 06475400

Position: Peer Reviewer

Academic degree: PhD

Professional title: Chief Physician, Doctor

Reviewer's Country/Territory: China

Author's Country/Territory: China

Manuscript submission date: 2022-11-23

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-12-21 00:37

Reviewer performed review: 2022-12-21 01:51

Review time: 1 Hour

Scientific quality	☐ Grade A: Excellent ☐ Grade B: Very good ☐ Grade C: Good ☒ Grade D: Fair ☐ Grade E: Do not publish
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SPECIFIC COMMENTS TO AUTHORS

This manuscript of review is acceptable after a few minor revisions. Li and co-workers are exploring the role of MSCs-derived exosomal miRNAs in tendon-bone healing. This is a traditional and quiet simple article. It is need to add some content before considering whether to accept. 1. In result "Screening and identification of candidate exosomal miRNAs and target genes", authors need to show the GSE calibration to reflect the completeness and correctness of the data. 2. Pictures of biometrics analysis concluding GO analysis and KEGG analysis are quiet simple and rough which are often shown in earlier years. Authors needs to further optimize pictures of biometrics analysis. 3. In result "Construction of target gene-PPI and miRNA-hub gene networks", Authors need to describe in detail how to get the hub gene, because there are many setting conditions in the STRING database. In sum, this is an acceptable manuscript of review paper. It is organized well with evident collections of previous work but need further improve relevant data.