

JOURNAL EDITOR-IN-CHIEF'S REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 78194

Title: Exosomes from circ-Astn1-modified adipose-derived mesenchymal stem cells enhance wound healing through miR-138-5p/SIRT1/FOXO1 axis regulation

Journal Editor-in-Chief (Associate Editor): Shengwen Calvin Li

Country/Territory: United States

Editorial Director: Jia-Ru Fan

JOURNAL EDITOR-IN-CHIEF (ASSOCIATE EDITOR) COMMENTS TO AUTHORS

Round 1

Please refer to the following problems for modification:

- 1) Page 7: "High-throughput and strand-specific RNA sequencing library construction: Total RNA from ADSCs and fibroblast Exos was isolated using TRIzol reagent (Invitrogen, Carlsbad, CA, United States)." [EIC comment: How could they isolate RNA from exosomes? Methods? Yield? Characterizations?].
- 2) Page 8: "Identification and isolation of ADSC-derived Exos" [EIC comment: How did they know they got exosomes without EM micrographs and ID biomarkers?]
- 3) Page 3: "Exos containing high concentrations of circ-Astn1 had enhanced therapeutic effects in restoring EPC function under HG conditions by promoting SIRT1 expression." [How did they verify the evidence?]
- 4) Page 16: "In this study, we found a series of circRNAs, which were shown by RNA-Seq to be abnormally expressed in ADSC Exos compared with fibroblast Exos." [EIC comment: this is not logical]

- 5) Page 16: "Further study showed that circ-Astn1 was more significantly decreased in EPCs after exposure to HG conditions, suggesting that ADSC Exos protected EPCs from HG-induced damage related to circ-Astn1 delivery." [EIC comment: Is circ-Astn1 in EPCs or exosomes?][refer to #4 question above].
- 6) Numerous typographical and grammatical errors crawl across pages.

Round 2

EIC Specific comments on R2

- 1) Page 9: "Diabetic wound induction

We utilized Balb/c mice and induced diabetes through single intraperitoneal injection of 60 mg/kg streptozotocin (STZ)" [add a before single].

2) MATERIALS AND METHODS: I wanted to bring to your attention that the writing style in the entire section appears to be a mix of passive and active voice, which may potentially create confusion for the reader. In current scientific publications, it is generally preferred to use passive voice. However, if the section was intended to be written in passive voice to align with the conventions of scientific writing, it may be worth revising the active voice sentences to ensure consistency throughout. It is important to consider the implications that the use of passive voice was suggested by someone else, whereas the use of active voice may have been a choice made by the authors. Would it be possible to revise the section to ensure consistency and clarity?

3) Page 13: "Transmission electron microscopy revealed that ADSC Exos had spherical or cup-shaped morphology with [a] diameter ranging from 50 to 120 nm (Figure 1J) as previously reported[21]."

4) Page 14: "treatment with Exos containing high levels of circ-Astn1 were [was] more effective in promoting angiogenesis of EPCs under HG conditions (Figure 2G-J)."



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- 5) Page 17: “, our research indicateds [indicates] that Exos derived from circ-Astn1-modified ADSCs enhanced wound healing”
- 6) Page 17: “Our study verified the therapeutic effects of circ-Astn1-Exos on a [an] STZ-induced diabetic wound healing model.”
- 7) Page 18: “derived mesenchymal stem cells (ADSCs) exhibit [the] potential to improve endothelial cell function along with the wound healing process.”