ANSWERING REVIEWERS

December 31, 2013

Dear Editor,

Attached is the revised manuscript in Word format (file name: ESPS Manuscript NO.7544-Review.doc).

Title: Adult Stem Cell-based Apexogenesis

Author: Yao Li, Lihong Shu, Ming Yan, Junjun Li, Guangdong Zhang and Jinhua Yu

Name of Journal: *World Journal of Methodology*

ESPS Manuscript NO: 7544

The manuscript has been extensively improved according to the reviewers' suggestions.
1 Format has been updated

2 Revision has been made according to the suggestions of the reviewer

(1) Responses to Reviewer #1 comments

a) No clear explanation with figures.

> Thank you for your kind comments. A figure has been supplemented in the revised manuscript. Please refer to Figure 1.

b) There should be some tables to compare important aspects of stem cells from different researcher.

> Thanks for your suggestions. The authors have added two tables in the revised version. Please refer to tables 1 and 2.

c) Authors need to include the background history about stem cell developments.

> Thanks for your kind suggestions. The authors have discussed the background history about stem cell developments in the 'Introduction' section. Please refer to p1, para2, lines9-23 and lines26-30.

d) Discuss about first and earlier reports.

> Thanks for your comments. The authors have discussed these earlier reports in the revised manuscript. Please refer to p1, para2, lines16-23; p2, para2, lines1-2; p2, para3, line1; p2, para5, line1.

e) Diagrammatic explanation about stem cells is needed.

> Thanks for your suggestions. A diagrammatic explanation about stem cells has been supplemented. Please refer to Figure1.

f) Typo need to be corrected in several places.

> Thanks. The authors have extensively improved the language in the manuscript.

(2) Responses to Reviewer #2 comments

a) First, the right source of MSCs has to be chosen. It might be useful to take into account and discuss the different embryologic developmental sheet originating MSCs in the bone marrow (mesoderm) and in the dental annexes (neuro-ectoderm). This might explain the discrepancies observed in the

differentiation potential of MSCs from different sources and help to pick the optimal ones for the aimed goal.

> Thanks for your constructive comments. The authors have discussed it in the 'Adult stem cell candidates' section. Please refer to p2, para1, lines6-16.

b) Second, the choice of the right MSCs is essential to pair them with the most compatible inductive material, a match that can be easily performed in preliminary in vitro experiments.

> Thanks for your kind suggestions. It has been discussed in the 'Putative inductive materials' section. Please refer to p3, para2, lines7-10; p3, para3, lines12-18; p3, para4, lines5-8.

c) Regarding the key expression of CD 146 by MSCs, at least two manuscripts have to be cited.

> Thanks for your suggestions. The authors have cited the two articles in the revised manuscripts. Please refer to p3, para2, line7.

3 References and typesetting have been corrected

Thank you again for publishing our manuscript in *World Journal of Methodology*.

Sincerely yours,

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