

Format for ANSWERING REVIEWERS

February 22, 2015



Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: 15528-review.doc).

Title: Hair follicle stem cells: *In vitro* and *in vivo* neural differentiation

Author: Nowruz Najafzadeh Ph.D, Banafshe Esmaeilzade Ph.D, Maryam Dastan Imcheh M.Sc

Name of Journal: *World Journal of Stem Cells*

ESPS Manuscript NO: 15528

The manuscript has been improved according to the suggestions of reviewers:

1 Format has been updated

Comment1: *Manuscript must be edited by native English speaker.*

Response: The paper is checked again to improve its grammar and language by M. Arzanlou, M. Amani and M. Sagha. With regard to language/grammar, the manuscript required several changes, and many sentence reconstructions and word choice changes were made to achieve true native expression. Moreover, language certificate provided by professional English language editing company of **Radan**.

Comment2: *The format of this section should be like this:*

Author contributions: Wang CL and Liang L contributed equally to this work; Wang CL, Liang L,

Fu JF, Zou CC, Hong F and Wu XM designed research; Wang CL, Zou CC, Hong F and Wu XM performed research; Xue Jz and Lu JR contributed new reagents/analytic tools; Wang CL, Liang L and Fu JF analyzed data; and Wang CL, Liang L and Fu JF wrote the paper.

Response: We wrote Authors contributions.

Comment3: *please add conflict of interest.*

Response: The authors declare that there are no conflicts of interest.

Comment4: *Only one corresponding address should be provided. Author names should be given first, then author title, affiliation, the complete name of institution, city, postcode, province, country, and email.*

Response: Correspondence to: Nowruz Najafzadeh, Ph.D, Research Laboratory for Embryology and Stem Cells, Department of Anatomical Sciences and Pathology, School of Medicine, Ardabil University of Medical Sciences, Ardabil, 5618985991, Ardabil, Iran, **n.najafzade@arums.ac.ir**

Comment5: *Telephone and fax should consist of +, country number, district number and telephone or fax number, e.g. Telephone: +86-10-59080039, Fax: +86-10-59080039.*

Response: Telephone: +984533513776, Fax: +984533513424

Comment6: *wrote core tip*

Response: Hair follicle stem cells can proliferate *in vitro* and retain the label for a long time. Various types of stem cells, including, epidermal-neural crest stem cells, nestin-positive, keratin 15-negative cells, and CD34-positive cells have been demonstrated in hair follicles. HFSCs normally give rise to keratinocytes, sebocytes, and transient amplifying cells *in vivo*. In addition, these cells differentiate into ectodermal lineages including oligodendrocytes, astrocytes, and neurons. Neural cells derived from HFSCs can replace lost cells in neurodegenerative diseases. Their easy accessibility along with their potential for neural differentiation makes HFSCs an ideal stem cell

source for treatment of neurodegenerative disorders.

Comment7: *In order to attract readers to read your full-text article, we request that the first author make an audio file describing your final core tip. This audio file will be published online, along with your article. Please submit audio files according to the following specifications:*

Response: we made an audio file and attached it.

Comment8: *Please add PubMed citation numbers and DOI citation to the reference list and list all authors. Please revise throughout. The author should provide the first page of the paper without PMID and DOI.*

PMID (<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=PubMed>)

DOI (<http://www.crossref.org/SimpleTextQuery/>)

Response: we corrected them according the journal reference style.

Response to Reviewer comment

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

Reviewer1 comments

Comment1: *1 a discussion of isolation methods should be included:*

Response: we included isolation methods discussion in "Cell surface markers" subtitle.

Comment2: *page9 the subtitle: "in vivo neural differentiation of HFSCs" is not fitting; therapeutic application may better;*

Response: we corrected it to" **Therapeutic application of hair follicle stem cells**"

Comment3; *page 7, line7 from bottom, generated, should be generate*

Response: corrected

Reviewer 2 comments

Comment1: *this manuscript mainly discussed the neural differentiation of HFSCs and its application in CNS disorders. Why is the title named "hair follicle stem cells: in vivo and in vitro*

differentiation" a too board or general title.

Response: we changed the title into" hair follicle stem cells: *In vitro* and *in vivo* **neural** differentiation.

Comment2: *the abstract should be rewritten and make it brief and focused. For instance "the discovery of hair follicle stem cells (HFSCs) got back to 20 years ago" is excessive for an abstract. Use brief and focused definition to introduce HFSCs in abstract.*

Response: The sentence were deleted. Moreover, another excessive sentences were deleted in abstract.

Comment3: *a discussion about advantages and disadvantages of applying of HFSCs in treatment of CNS disorders is needed. Why is the HFSCs? And what are its special advantages compared to other kinds of stem cells in treatment of CNS disorders. The authors should focus on this kind of discussion in introduction and respective discussion parts of SCI, AD in the last part of manuscript.*

Response: we rewrite the "Therapeutic application of HFSCs" and we note to importance of the HFSCs.

Comment4: *there are some language problems which should be revised by native speakers carefully.*

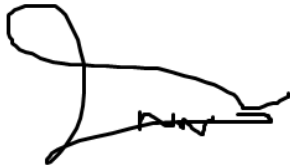
Response: we sent manuscript to Radan English editing center for further language editing. The certification were uploaded into Journal site.

Comment5: *the reference format are not accordance. The authors should check them very carefully.*

Response: References and typesetting were corrected

Thank you again for publishing our manuscript in the *World Journal of stem cells*.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'N Najafzadeh', with a stylized flourish at the end.

Nowruz Najafzadeh, PhD

Department of Anatomical Sciences and Pathology

Ardabil University of Medical Sciences

Ardabil, Daneshgah Street

Iran

Fax: +98-45-33513424

E-mail: n.najafzade@arums.ac.ir