Author's response to reviews

Title: Osteogenic Differentiation of Amniotic Epithelial Cells: Synergism of Pulsed Electromagnetic Field and Biochemical Stimuli

Authors:

Qian Wang (wangqianwind@163.com)
Wenchao Wu (wwwenchao108@sina.com)
Xiaoyu Han (hxy276276@163.com)
Ai Zheng (zazheng716@yahoo.com.cn)
Song Lei (290264090@qq.com)
Jiang Wu (jetterwu@163.com)
Huaiqing Chen (chq@wcums.edu.cn)
Chengqi He (hxkfhcq@126.com)
Fengming Luo (luofengming@hotmail.com)
Xiaojing Liu (xiaojingliu67@gmail.com)

Version: 3 Date: 27 May 2014

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Chengqi He (hxfhcq@126.com)
Fengming Luo (luofengming@hotmail.com)
Xiaojing Liu (xiaojingliu67@gmail.com)

Vision: 3 Date: 27 May 2014

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Reviewer's report

Title: Osteogenic Differentiation of Amniotic Epithelial Cells: Synergism of Pulsed Electromagnetic Field and Biochemical Stimuli

Version: 2 Date: 20 May 2014
Reviewer: Mei-Ling Ho

Reviewer's report:

Minor Essential Revisions

Most of the revision is appropriate; however, the following errors need to be corrected:

1. Fig 4 is the IHC for OC, but showed Alizarin red staining on the top of the fig. Many thanks for your careful review and the error has been corrected as indicated.

2. Some English grammar errors in Discussion section are indicated in yellow:

1) P.8: The osteo-induction medium was also ability to induce the osteogenesis of AECs as reported in the previous literature[5].

   The error has been corrected as indicated: The osteo-induction medium was also able to induce the osteogenesis of AECs as reported in the previous literature[5].

2) P.9: Additionally, similar gene expression profile of BMP2, Runx2 and β-catenin were observed. These results may be due to the fact that BMP-2/Runx2 or Wnt/β-catenin signaling are required for the initiation of osteoblast differentiation,

   The errors have been modified as following: Additionally, similar gene expression profiles of BMP2, Runx2 and β-catenin were observed. These results may be due to the fact that both BMP-2/Runx2 and Wnt/β-catenin signaling could play
important role in activating the osteogenic induction of AECs at the early-stage, while down-regulation of these signals are required for the late-stage of osteogenesis and matrix mineralization[26-27].

3) P.9: In our study, the induction expression of Nrf2 and Keap1 was observed in the treatment of PEMF and/or osteogenic inducing media, and the gene expression of Nrf2 and Keap1 exhibited a similar profile during the osteogenesis of AECs.

The corrections of the errors are as following: In our study, the induction expression of Nrf2 and Keap1 were observed in the treatment of PEMF and/or osteo-induction medium, and the gene expression of Nrf2 and Keap1 exhibited similar profiles during the osteogenesis of AECs.

**Level of interest:** An article whose findings are important to those with closely related research interests.

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

Sincerely yours,

Professor Xiaojing Liu,

Laboratory of Cardiovascular Diseases,
Regenerative Medicine Research Center,
West China Hospital, Sichuan University,
Chengdu 610041, Sichuan, P.R.China

Tel: 86-28-85423049,
Fax: 86-28-85422029,
Email: xiaojingliu67@gmail.com