

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

ESPS manuscript NO: 27833

Title: Model acupuncture point: Bone marrow-derived stromal stem cells are moved by a weak electromagnetic field

Reviewer's code: 00505755

Reviewer's country: Japan

Science editor: Xue-Mei Gong

Date sent for review: 2016-06-21 14:13

Date reviewed: 2016-06-22 16:15

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

General comments (1) The importance of the research and the significance of the research findings This research is important in terms of describing about the electromagnetic field effect for bone marrow-derived stromal stem cells. (2) The novelty and innovative nature of the research This is an innovative research describing about the cell movement by electromagnetic field. (2) The quality of the manuscript's presentation and readability There needs some improvement in English such as RESALTS etc. (3) The ethics-related aspects of the research It is difficult to judge the ethics, since the provided documents such as informed consent statement, institutional animal care and use committee statement and institutional review board statement are written in Russian. Specific comments Title: It accurately reflects the major topic and contents of the study. Abstract: RESALTS should be RESULTS. Proofread is needed. Text: The phenomenon described in the manuscript is very interesting, however, English proofread is needed. References: Please check reference citations carefully. Figures and Tables: Picture for figure 4 seems black, please correct the figure.

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

ESPS manuscript NO: 27833

Title: Model acupuncture point: Bone marrow-derived stromal stem cells are moved by a weak electromagnetic field

Reviewer's code: 02446119

Reviewer's country: China

Science editor: Xue-Mei Gong

Date sent for review: 2016-06-21 14:13

Date reviewed: 2016-06-28 09:44

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good	<input checked="" type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

In this manuscript, Dr Emelyanov et al tried to use a in vitro model to explain the possible role of acupuncture in cell arrangement in physical field. This is a wonderful technique to demonstrate the electromagnetic field (EMF) structure by Gas Discharge Visualization (GDV) in the presence of a magnetized needle in cell culture dishes. Since this study was mainly on phenomenon observation, this primary data need further exploration on its mechanism by proper interventions. Most of the results were descriptive, especially the effect of season and rotating direction of the needles. More repeated experiments should be done before a conclusion could be drawn based on statistical analysis of the data. The authors discussed in a whole paragraph about the possible role of glycocalyx in cell movement in electric field. In fact, there was not any parameter to show the expression and the integrity of this charged molecule. In Fig 8, I am not sure if b1 and b2 are in a wrong position and need an exchange. Many sentences are difficult to understand because the strange grammatical errors. Some long sentences should be shortened for easy reading, such as " It is likely that bearing on its surface a negative charge BMSCs move toward the dish center as long as the magnetic force directed



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from the center becomes equal electric force directed toward the dish center."

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

ESPS manuscript NO: 27833

Title: Model acupuncture point: Bone marrow-derived stromal stem cells are moved by a weak electromagnetic field

Reviewer's code: 00609434

Reviewer's country: Italy

Science editor: Xue-Mei Gong

Date sent for review: 2016-06-21 14:13

Date reviewed: 2016-07-06 20:21

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
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<input type="checkbox"/> Grade E: Poor	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> No	<input type="checkbox"/> Minor revision
		BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input type="checkbox"/> No	

COMMENTS TO AUTHORS

The manuscript from Emelyanov et al. is a study investigating the influence of a light magnetic field, applied through a needle, on Mesenchymal Stem Cell (MSC) behaviour and proliferation in vitro by using both rat and human sources. Emelyanov and collaborators demonstrate an influence of MF on cell disposition on the plastic surface of the plates but no effect on the cell proliferation rate. This manuscript could be of interest in its field since the hypothesis is novel but the data presented do not allow an unequivocal interpretation, the reading of the manuscript in its whole is confusing and too long, it needs a thorough revision. The following is a list of suggestions to improve that should be at least addressed, in my opinion, before this manuscript can be considered for publication. 1) I'm sorry but English is really poor, the manuscript needs an accurate revision, often sentences are so confusing that it's difficult to understand the meaning. 2) The manuscript is too long, there are too much descriptions of experimental settings that the authors have tried but without a proper presentation in figures and any statistical significance cannot be considered of relevance to the scope of the paper. All considerations made without a proper presentation as significant data should be removed. 3)



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Authors should number the figures in the order with which they discuss the results shown in them, i.e. figure 5 can't be the first figure that is addressed in the results section. Since figures from 1 to 4 simply describe the methodologies and experimental strategies used they could be collected in a single scheme. 4) The photographs in Figure 5 do not allow to see anything, authors should present images with a higher quality to allow readers to verify the results described in the text. Furthermore this figure lacks the proper controls, i.e. cells in the absence of the needle or in its presence but not subjected to MF. 5) The inferences on the influence of the season on cell behaviour and proliferation lack statistical evidences, thus they can't be discussed in the manuscript as if the phenomenon was of relevance. The authors should first demonstrate it unequivocally and then discuss it. I suggest to remove those inferences both from the results and from the discussion. 6) The discussion is too long and many sentences lack the proper references to the literature, furthermore it is difficult to understand the impact of the findings of the manuscript on its field and the relations to the current literature.