

PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 55683

Title: In vivo cardiac pacemaker function of differentiated human mesenchymal stem cells from adipose tissue transplanted into porcine hearts

Reviewer's code: 03478635

Position: Peer Reviewer

Academic degree: PhD

Professional title: Senior Research Fellow

Reviewer's Country/Territory: Japan

Author's Country/Territory: Germany

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Reviewer chosen by: Ruo-Yu Ma

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|---------------------------------|---|
| Scientific quality | <input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish |
| Language quality | <input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection |
| Conclusion | <input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection |
| Re-review | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Peer-reviewer statements | Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

SPECIFIC COMMENTS TO AUTHORS

This is a very important study about transplantation of human adipose-derived MSCs into porcine left ventricular free wall. The difference between native haMSCs and differentiated haMSCs after transplantation in terms of marker expression may be explained more in detail. The mechanism of BMP4-induced differentiation of haMSCs into pacemaker cells may be added.