

## ESPS PEER REVIEW REPORT

**Name of journal:** World Journal of Stem Cells

**ESPS manuscript NO:** 14364

**Title:** Mesenchymal stem cells as a therapeutic tool to treat sepsis

**Reviewer code:** 02446025

**Science editor:** Xue-Mei Gong

**Date sent for review:** 2014-10-01 21:42

**Date reviewed:** 2014-10-19 15:31

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input checked="" 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"/> Existing	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Existing	<input checked="" type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input type="checkbox"/> No records	<input type="checkbox"/> Major revision

### COMMENTS TO AUTHORS

This report reviewed the current knowledge on the effects of MSC treatment in preclinical experimental small animal models of sepsis, from the background of sepsis, the mechanism of Sepsis to the potential effect of MSC on the animal models of sepsis and discussed the possible mechanisms. The clue of this review was logically and well organized. Several minor comments: 1. In the section of "Effect of MSC treatment on mortality and organ injury induced by sepsis", it would be much better if the source of MSC, the route of administration could be listed and discussed in each cited study in the text although they were listed in the table 1. 2. It would be very interesting to know if there was any side effect such as lung trap occurred in different models. 3. The table 1 need to be modified in order to read and understand. 4. The authors concluded that "The promising results obtained in those preclinical efficacy studies strongly support the design of randomized trials to determine the therapeutic potential of allogeneic MSCs in sepsis." It would be helpful to reader if the authors could give their perspective on what should be considered or pay more attentions when design the randomized trial to confirm the therapeutic potential of allogeneic MSCs in sepsis in human. 5. Several minor typos, such as "an" should be "a" in the first paragraph on page 6...

## ESPS PEER REVIEW REPORT

**Name of journal:** World Journal of Stem Cells

**ESPS manuscript NO:** 14364

**Title:** Mesenchymal stem cells as a therapeutic tool to treat sepsis

**Reviewer code:** 00906911

**Science editor:** Xue-Mei Gong

**Date sent for review:** 2014-10-01 21:42

**Date reviewed:** 2014-10-19 18:56

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

## COMMENTS TO AUTHORS

This article contains useful contents for mesenchymal stem cells as a therapeutic tool to treat sepsis.

## ESPS PEER REVIEW REPORT

**Name of journal:** World Journal of Stem Cells

**ESPS manuscript NO:** 14364

**Title:** Mesenchymal stem cells as a therapeutic tool to treat sepsis

**Reviewer code:** 00462683

**Science editor:** Xue-Mei Gong

**Date sent for review:** 2014-10-01 21:42

**Date reviewed:** 2014-10-14 19:52

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	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"/> Existing	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Existing	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input type="checkbox"/> No records	<input type="checkbox"/> Major revision

## COMMENTS TO AUTHORS

The report of Lombardo et al, summarizes the effect of mesenchymal stem or stromal cells (MSCs) treatment in experimental small animal models of sepsis, and concludes that the results obtained support the design of randomized trials to determine the beneficial effects of MSC in patients with sepsis. However, it is very important to keep in mind that compounds that failed in clinical trials were effective in one or more small animal models of sepsis or septic shock, including that of cecal ligation and puncture (CLP), which has been considered the best animal model of sepsis. Although MSCs may actually be a therapeutic tool for the treatment of sepsis, the authors should emphasize the need for an animal model whose inflammatory response may be more similar to that which occurs in humans, and not to conclude "the promising results .....strongly support the design of randomized trials to determine the therapeutic potential of allogenic MSC in sepsis"