

## ESPS Peer-review Report

**Name of Journal:** World Journal of Gastroenterology

**ESPS Manuscript NO:** 7264

**Title:** Regulatory Effect and Possible Mechanisms of Carbon Monoxide-Releasing Molecule II on Hepatic Energy Metabolism in Septic Mice

**Reviewer code:** 00008590

**Science editor:** Gou, Su-Xin

**Date sent for review:** 2013-11-12 13:10

**Date reviewed:** 2013-11-21 18:03

| CLASSIFICATION  | LANGUAGE EVALUATION  | RECOMMENDATION                      | CONCLUSION   |
|---|--|-------------------------------------|--|
| <input type="checkbox"/> Grade A (Excellent)            | <input checked="" type="checkbox"/> Grade A: Priority Publishing     | Google Search:                      | <input type="checkbox"/> Accept                        |
| <input checked="" type="checkbox"/> Grade B (Very good) | <input type="checkbox"/> Grade B: minor language polishing           | <input type="checkbox"/> Existed    | <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"/> Existed    | <input type="checkbox"/> Minor revision                |
| <input type="checkbox"/> Grade E (Poor)                 |  | <input type="checkbox"/> No records | <input checked="" type="checkbox"/> Major revision     |

## COMMENTS TO AUTHORS

This is a well designed experimental study of the potential benefit of CO in sepsis. Major points: 1. In the abstract under results, actual data should be presented, including SD and p values. 2. Results and Fig. 1, p values are to be presented. 3. Discussion, first sentence. Please provided reference(s). Second sentence, please compare the deaths by sepsis to death by other diseases in the US. 4. A detailed discussion in the text is necessary how your data may be applicable in human sepsis. Minor points: 1. In the title and the first sentence of the abstract, please give some information about CORM-2 to those readers not familiar with this product. 2. Abstract, aim: sepsis should read experimental sepsis. 3. In the abstract, all abbreviations should be expanded when first mentioned. Enzymes such as ALT, AST and others should be evaluated as activities not as levels, this applies also to the text of the manuscript. 4. Introduction, second sentence requires reference(s). 5. Materials, first line. Please give details of the origin of CORM-2, from what is was prepared. Last sentence, German should read Germany.

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**Reviewer code:** 00502830

**Science editor:** Gou, Su-Xin

**Date sent for review:** 2013-11-12 13:10

**Date reviewed:** 2013-11-27 15:02

| 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 checked="" type="checkbox"/> Grade B: minor language polishing | <input type="checkbox"/> Existed    | <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"/> No records | <input type="checkbox"/> Rejection                     |
| <input type="checkbox"/> Grade D (Fair)            |   | BPG Search:                         | <input checked="" type="checkbox"/> Minor revision     |
| <input type="checkbox"/> Grade E (Poor)            | <input type="checkbox"/> Grade D: rejected                            | <input type="checkbox"/> Existed    |  |
|  |   | <input type="checkbox"/> No records | <input type="checkbox"/> Major revision                |

## COMMENTS TO AUTHORS

The authors tried to elucidate the possible mechanisms of exogenous CORM-2 on hepatic energy metabolism in septic mice. They concluded that release of CO molecules by CORM-2 maintain a stable level of hepatic glucose metabolism and improved liver function and survival rate. This is an interesting article. However, I have some comments on this article. Major comments 1. What is a main mechanism of CORM-2 on improving survival? Please explain this mechanism in discussion.

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**Title:** Regulatory Effect and Possible Mechanisms of Carbon Monoxide-Releasing Molecule II on Hepatic Energy Metabolism in Septic Mice

**Reviewer code:** 00502768

**Science editor:** Gou, Su-Xin

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| CLASSIFICATION           | LANGUAGE EVALUATION                             | RECOMMENDATION | CONCLUSION                        |
|--------------------------|---|----------------|-----------------------------------|
| [ Y] Grade A (Excellent) | [ Y] Grade A: Priority Publishing               | Google Search: | [ ] Accept                        |
| [ ] Grade B (Very good)  | [ ] Grade B: minor language polishing           | [ ] Existed    | [ ] High priority for publication |
| [ ] Grade C (Good)       | [ ] Grade C: a great deal of language polishing | [ ] No records | [ ] Rejection                     |
| [ ] Grade D (Fair)       | [ ] Grade D: rejected                           | [ ] Existed    | [ Y] Minor revision               |
| [ ] Grade E (Poor)       |   | [ ] No records | [ ] Major revision                |

## COMMENTS TO AUTHORS

This study concludes that release of CO molecules by CORM-2 protects mitochondria and maintains the stable level of hepatic glucose metabolism. CORM-2 thus improves liver function and survival in septic mice. Overall, this study is well-done, the paper is clearly written. The reason for the study seems sound. The conclusions seem to be relevant and the literature covers the subject. I enjoy the study. A few points need to be clarified, but they seem minor. 1、In materials and methods section, the authors should provide the chemical structure of CORM-2. 2. A dose of 8 mg/kg of intravenous CORM-2 was administered to each mouse in the treatment group. But why you selected the dose of 8 mg/kg?