

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 72792

Title: The role of Sirt1 in Attenuation of Acute Liver Failure by Reducing ROS via HIF-1 α

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 04074652

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: China

Author's Country/Territory: China

Manuscript submission date: 2021-10-28

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-10-29 01:47

Reviewer performed review: 2021-10-29 08:07

Review time: 6 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input checked="" type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" 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 type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input checked="" type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Peer-reviewer statements	Peer-Review: [<input checked="" type="radio"/>] Anonymous [<input type="radio"/>] Onymous Conflicts-of-Interest: [<input type="radio"/>] Yes [<input checked="" type="radio"/>] No
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SPECIFIC COMMENTS TO AUTHORS

This study has some potential findings about how Sirt1 and HIF-1 α change during Acute Liver Failure mice model. Sirt1 may have a protective effect on ALF by inducing HIF-1 α deacetylation to reduce ROS. But the mechanism between them is not well illustration. Major: This is just an observational study without any novel mechanistic finding. As the author mentioned, HIF-1 α has been confirmed to be related to Sirt1, Sirt2 and Sirt3 in the Sirt family. The author should test all mentioned Sirt family levels or the co-IP of Sirt family and HIF-1 α in your mice model. This work is more about showing the relevance of proteins mentioned in the paper. Whether there is a direct regulatory relationship is not well explained. Minor 1. The format of the article is too arbitrary, like disordered references. 2. It's hard to define that "Hypoxia reduced the expression of Sirt1 causing the activation and acetylation of HIF-1 α " in Figure 2 and Figure 3. It's just a correlation between Sirt1 and HIF-1 α .

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Manuscript NO: 72792

Title: The role of Sirt1 in Attenuation of Acute Liver Failure by Reducing ROS via HIF-1 α

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05844738

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: Malaysia

Author's Country/Territory: China

Manuscript submission date: 2021-10-28

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-10-29 06:35

Reviewer performed review: 2021-11-07 13:00

Review time: 9 Days and 6 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No



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Peer-reviewer statements	Peer-Review: [<input checked="" type="radio"/>] Anonymous [<input type="radio"/>] Onymous Conflicts-of-Interest: [<input type="radio"/>] Yes [<input checked="" type="radio"/>] No
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SPECIFIC COMMENTS TO AUTHORS

The basic research titled “The role of Sirt1 in Attenuation of Acute Liver Failure by Reducing ROS via HIF-1 α ” to the World Journal of Gastroenterology Method section: The sentence mentioned, “exposed or not to hypoxic conditions as the animal model.” This sentence is not clear and needs to say concretely which method followed the study. Should not keep “or” The reference should be revised in a proper sequence. For example, this paper reference citation started with 20. Therefore, please need to edit it. Needs to write the separate section of conclusion. The whole manuscript needs reference formatting.

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Title: The role of Sirt1 in Attenuation of Acute Liver Failure by Reducing ROS via HIF-1 α

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05573866

Position: Peer Reviewer

Academic degree: MD

Professional title: Assistant Professor

Reviewer's Country/Territory: Egypt

Author's Country/Territory: China

Manuscript submission date: 2021-10-28

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-10-31 03:59

Reviewer performed review: 2021-11-08 14:19

Review time: 8 Days and 10 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" 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 checked="" 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
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SPECIFIC COMMENTS TO AUTHORS

Dr. Editor in chief World Journal of Gastroenterology I would like to thank you for your suggestion to review the paper entitled " Hypoxia often occurs during Acute liver failure (ALF). Hypoxia-inducible factor (HIF)-1 α is a key factor that regulates oxygen homeostasis and redox, and promotes effective adaptation to hypoxia. " for World Journal of Gastroenterology. Comments to the editor: The current manuscript is interesting, but multiple concerns and questions need to be answered before giving the final decision, all were listed below. According the check list I have added the following comments; The title reflects the main subject/hypothesis of the manuscript The abstract is well summarized and described the work in the manuscript. The key words reflect the focus of the manuscript Generally the manuscript is well structured Comments to Authors: Authors investigated whether hypoxia inducible factor (HIF)-1 α may be a target of Sirt1 deacetylation and their effect on Acute liver failure (ALF). Multiple concerns and questions need to be answered before giving the final decision, all were listed below: Major concerns; • For induction of hypoxia animal model., mice should be present in a special environmental chamber (Oxycycler, BioSpherix, Redfield, NY). The ambient O₂ concentration within the chambers is continuously measured by an O₂ analyzer and adjusted according to computerized profiles set for the experiments with the use of a computerized servo-controlled system and not plastic chamber. So the lack of description of the method used for induction of hypoxia makes a doubt about the whole work. • If the procedure for induction of hypoxia was accurate, did authors measured blood gases? • How could animals survive for 2 weeks without developing pulmonary edema, in my opinion this prolonged duration of hypoxia might induce



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severe complications that could influence survival of the animals. • Authors are encouraged to present their time line study for each group? • What was the solvent substance used for dissolving resveratrol? • Why did author choose 24 h time point after LPS administration for sacrifice? Minor corrections: The manuscript still needs revision as it contains multiple typing and punctuation errors such as: Page 5; line 4: remove “which” Page 5; line 18: change “Approve number” to approval number Page 15; line 12 change “we examed” to we examined