



SDI Review Form 1.6

Journal Name:	<u>Journal of Advances in Medical and Pharmaceutical Sciences</u>
Manuscript Number:	Ms_JAMPS_29700
Title of the Manuscript:	Induction of heme oxygenase-1 improves glucose tolerance and enhances insulin sensitivity in obese diabetic rats
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<u>Compulsory</u> REVISION comments	1. Lack of experimental group. There is no HO activity blocker. So the authors cannot prove the effect of hemin is the result of HO-1 induction. 2. There is no direct indices to reflect HO-1 expression level. No western, no PCT, or even no IHC to show whether HO-1 is exactly up-regulated. 3. Plasma bilirubin level is not a good index for HO-1 activity, and it is also influenced by other factors, like liver function. Tissue HO-1 activity should be measured. 4. No baseline data of the animals. Weight and glucose level should be included at least. 5. The design of the study is very simple. No molecular or cell biology experiments. The beneficial effects of HO-1 on obesity and diabetes have been proved by many studies, so there should be some exploration of relative mechanisms for novelty.	- Induction of hemoxygenase was the main goal of our study. Hemoxygenase is induced by different inducers and hemin is a well-documented inducer of hemoxygenase, so the results of our study reflect effects of hemoxygenase induction. - Hemoxygenase degrade heme to equimolar amounts of CO, Iron and bilirubin, so we measured bilirubin level as an indicator for the activity of hemoxygenase. Although a direct measure for Ho-1 activity is preferable but we tried to use the best of our available resources. - We have data base for weight but the effect of hemin on body weight was not significant and we make these data hidden and regarding glucose it is mentioned in the results. - The study was performed mainly by personal fund and we tried our best to make the design within our available budget and tried to get good and respectable results. We will try in our next planned protocol to go more deep in this field.
<u>Minor</u> REVISION comments	1. The author should list the successful rate of model establishment, the survival rate of the animals. Are 18 animals all alive before sacrificed? If there were any loss of the animals in the middle, did they add additional animals?	- This model is well established and its success rate is nearly 100% - All animals continued the experimental protocol period.
<u>Optional/General</u> comments		