Author's response to reviews

Title: Hepatitis B virus X protein suppresses caveolin-1 expression in hepatocellular carcinoma through regulating DNA methylation

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Author's response to reviews: see over
Dear Dr. Steenbergen

Thank you for your review of our manuscript (MS: 1027956701663771) entitled “Hepatitis B virus X protein suppresses caveolin-1 expression in hepatocellular carcinoma by regulating DNA methylation”. We appreciate the concerns and suggestions provided by the editor and reviewers, and have revised our manuscript accordingly. Our point-by-point responses are provided below, and text that has been added or modified from the original text is shown in the revised manuscript in red font.

Upon review of our revised manuscript, we hope that you will find it acceptable for publication in BMC Cancer and we look forward to your response.

Sincerely,

Jiahong Dong, M.D, Ph.D
Xiaowu Li, M.D, Ph.D
Professor of Hepatobiliary Surgery
Responses to editor:

editor's report:

I still have a minor comment to the sentence added to the Discussion, as it is not phrased correctly.

The sentence included is the following:

"Although the classic qualitative method for methylation, n-MSP is not an accurate method to evaluate the relationship of the methylation level with the expression of caveolin-1 and the expression of HBx. It would be better to use Methylight and Western Blot to detect the expression of caveolin-1 and HBx. However, there was not a sufficient amount of HCC tissues to perform such further experiments. Therefore, the results were the limitation because the lack of quantitative analysis.”

It should be specified that MethyLight or other quantitative methylation assays are warranted to show the level of DNA methylation (an not expression as is written now) and to correlate it to the level of expression using quantitative assays for expression analysis such as qRT-PCR or Western blotting. The current sentence implies that MethyLight is measuring expression, which is not the case. Moreover, the last sentence "Therefore...analysis" needs to be rephrased as well to correct English.

Response: We appreciate your comment. The specific content has been revised in the manuscript in page 14, line 12. As follows: As a classic
qualitative method for DNA methylation, n-MSP is not accurate enough for evaluating the level of DNA expression. It would be better to use MethyLight assays to show the level of DNA methylation and to correlate it to the level of expression of caveolin-1 and HBx using quantitative assays for expression analysis such as qRT-PCR or Western blotting. However, there was not a sufficient amount of HCC tissues to perform such further experiments. So, the correlation between DNA methylation and the expression of corresponding mRNA and protein would be researched using quantitative assays in future studies.