

REVIEWERS' COMMENTS:

Thank you very much for the in-depth review of the paper and for mentioning some very important points which really helped us to improve the manuscript. We have re-written the part of the manuscript accordingly. We have also modified the title to remove abbreviations as per the format. We hope that the reviewers will now find the manuscript substantially revised with respect to the points raised by them. Here is the point-by-point response to the reviewers' comments:

Reviewer #1:

1. Why use ANOVA instead of Kruskal-wallis test.

ANOVA is a parametrical test that use to analyze the statistical differences of two or more groups by comparing their mean values whereas Kruskal-wallis test is a non-parametrical test that analyze the statistical differences of two or more groups by comparing their median values. ANOVA and Kruskal-wallis both test use for multiple comparisons of groups. However, ANOVA has more sensitivity and statistical power than Kruskal-wallis test and that is a reason we used ANOVA for data analysis of current study.

References:

- 1) Hecke, T. V. (2012). Power study of anova versus Kruskal-Wallis test. *Journal of Statistics and Management Systems*, 15(2-3), 241-247.
2. PCR for gene expression they used semiquantitative realtime PCR, so please correct this in the literature
We have now included the term semiquantitative real time PCR in the revised manuscript as per suggestion.

Reviewer #2

1. Page 6, Immunocytochemistry: Write PFA in full: paraformaldehyde (this is the first time that this word appears in the text).
We have now included the full name of PFA.
2. Primary antibodies CD90, CD105, CD73, CD44 and CD45: in which species were these antibodies prepared? (a mouse?)
All the primary antibodies including, CD90, CD105, vimentin, CD44 and CD45 were anti-mouse.

3. Please specify Are there negative controls (omitting the first antibody for example)? Specify, describe these controls.
We have now included detail of negative control in methodology and results section. We used secondary antibody without primary antibody in control.
4. Page 6, Flow cytometry: specify centrifugation speed (in number of g) and duration.
We have now included the centrifugation speed and duration in methodology section.
5. Page-6: write "Alexa fluor" instead of "Alexa flour".
We have corrected Alexa fluor in text.
6. Page 7: give the name of PBS in full because it is the first time that the word is encountered in the text.
We have now now included the full name of PBS
7. Page 7, hUC-MSK transfection: use italics to write *E. coli*
We have corrected this as per suggestion
8. Page 7: For the different techniques, give the method quickly: it is not enough to specify "according to the manufacturer's instructions" for a scientific article.
We have now included the details of plasmid DNA isolation and transfection protocols in the methodology section.
9. Page 7: Gene expression analysis of transfected hUC-MSKs : quickly give the method: it is not enough to specify "according to the manufacturer's instructions" for a scientific article.
We have now included the details of gene expression analysis protocol in methodology section.
10. Page 11, Abbreviations: write the abbreviations in alphabetical order.
We have corrected list of abbreviations as per suggestion
11. Page 19, figure 1: Use scale bars instead of "at 20X magnification"; the scale bars are not visible enough on the photos.
We have now included scale bars in figure 1 legend.
12. Page 20, figure 2: give a negative control photo as an insert for at least one photo. Use scale bars instead of "at 20X magnification"; the scale bars are not visible enough on the photos.
We have included details of negative control in methodology and results section. Also, we have included the scale bar in figure 2 legend.
13. Page 22, figure 4: write "transfected" instead of "transfected" Use scale bars instead of "at 20X magnification"; the scale bars are not visible enough on the photos.
We have now included scale bar in figure 4 legend. Also, we have corrected transfected in figure 4 title and elsewhere.

14. Page 23, figure 5: Indicate scale bars in the legend; the scale bars are not visible enough on the photos.

We have now included scale bar in figure 5 legend.