

## Review Form 1.6

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| Journal Name:            | <a href="#">Journal of Advances in Medicine and Medical Research</a>                                   |
| Manuscript Number:       | Ms_JAMMR_84622   |
| Title of the Manuscript: | The study on the gender difference in the proliferation rate of human umbilical mesenchymal stem cells |
| Type of the Article      | Original   |

### 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:

(<https://www.journaljammr.com/index.php/JAMMR/editorial-policy> )

### 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) |
|-------------------------------------|---|---|
| <b>Compulsory</b> REVISION comments | <ol style="list-style-type: none"> <li>1. Ethics statement is essential that umbilical cord / clinical material was obtained after written informed consent from donor.</li> <li>2. If Study protocol and procurement of clinical material was approved by institutional Human ethics committee</li> <li>3. Methods needs to be elaborated well or appropriate reference needs to be provided.</li> <li>4. Number of total clinical samples procured is not mentioned anywhere especially in methods, figures or tables.</li> <li>5. Authors have stated that age of mothers is crucial while delivery. However, age group of mothers from whom umbilical cords of male and female children were procured, is not mentioned. This information is needed for better clarity.</li> <li>6. Title needs revision, as umbilical MSC can be derived from umbilical cord or umbilical cord blood. There needs to be clarity about exact MSC source. Authors can hence revise title accordingly.</li> <li>7. Yield of hUC-MSc per sample needs to be provided for male versus female child source of umbilical cord. What was total length of cord collected and total UC-MSc obtained upon first passage. Comparative table needs to be assessed for result outcome.</li> <li>8. For Figure 2, percent expression and mean fluorescence value needs to be shown in each histogram. This data is representative of how many total hUC-MSc analyzed by flow cytometry, needs to be mentioned.</li> <li>9. For interpretation of Figure 3, staining of adipogenic, chondrogenic and osteogenic can be assessed in O.D format by eluting dye in appropriate solvent. Alternatively, image analysis software can be used if there was any change in color intensity in 3 to 5 images together for each set.</li> <li>10. For Table 2, footnotes should be provided. What does '1st time' term indicate. Does it mean first time point or number of samples.</li> <li>11. For data mentioned in Table 3 , its not clear if data indicates copy number or gel-based analysis. Method followed to obtain data needs to be provided.</li> <li>12. No where authors have provided mean of three or more experiments for statistical evaluation.</li> </ol> |   |
| <b>Minor</b> REVISION comments      | <ol style="list-style-type: none"> <li>1. Technical terms should be used and at many places, statements need to be rephrased.</li> <li>2. Analysis software used needs to be mentioned wherever applicable in methods, figures, etc.</li> <li>3. There are terms where marker names are misspelt, they should be corrected appropriately.</li> </ol>  |   |
| <b>Optional/General</b> comments    | Authors can cite article by Siegel, G. et al. (Phenotype, donor age and gender affect function of human bone marrow-derived mesenchymal stromal cells. BMC Med 11, 146 (2013). <a href="https://doi.org/10.1186/1741-7015-11-146">https://doi.org/10.1186/1741-7015-11-146</a> ) or similar work and discuss their results in similar context for improved discussion of manuscript.  |   |

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**PART 2:**

|   | <b>Reviewer's comment</b>  | <b>Author's comment</b> <i>(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)</i> |
|---|--|---|
| <b>Are there ethical issues in this manuscript?</b> | <i>(If yes, Kindly please write down the ethical issues here in details)</i><br><br>1. Ethics statement is essential that umbilical cord / clinical material was obtained after written informed consent from donor.<br>2. If Study protocol and procurement of clinical material was approved by institutional Human ethics committee |   |

**Reviewer Details:**

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|----------------------------------|---|
| Name:                            | <b>Jyoti Kode</b>   |
| Department, University & Country | <b>Advanced Centre for Treatment, Research &amp; Education in Cancer, Tata Memorial Centre, India</b> |