

Review Form 3

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| Journal Name: | Journal of Advances in Medicine and Medical Research |
| Manuscript Number: | Ms_JAMMR_120826 |
| Title of the Manuscript: | Morphology of Adherent Cells of the Line Vero Cultivated in a Three-Dimensional Environment Inside a Microfluidic Device Differs from their Morphology when Cultivated in Monolayers |
| Type of the Article | Short communication |

Review Form 3

PART 1: Review Comments

| Compulsory REVISION comments | Reviewer's comment | Author's Feedback (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here) |
|---|---|---|
| Please write few sentences regarding the importance this manuscript for scientific community. Why do you like (or dislike) this manuscript? Minimum 3-4 sentences may be required for this part. | This manuscript is significant for the scientific community as it highlights the differences in cell morphology when Vero cells are cultivated in 2D versus 3D environments. Understanding these differences is crucial for improving in vitro models that more accurately mimic in vivo conditions, leading to better research outcomes in cell biology and drug development. The findings emphasize the importance of 3D culture systems in replicating natural cellular interactions and morphology, which can provide more relevant data for biomedical research. The detailed comparison of cell morphology between 2D and 3D cultures offers valuable insights for researchers looking to enhance the physiological relevance of their experimental models. | |
| Is the title of the article suitable? (If not please suggest an alternative title) | Yes | |
| Is the abstract of the article comprehensive? Do you suggest addition (or deletion) of some points in this section? Please write your suggestions here. | Check thoroughly all the words spelling | |
| Are subsections and structure of the manuscript appropriate? | Ok | |
| Please write few sentences regarding the scientific correctness of this manuscript. Why do think that this manuscript is scientifically robust and technically sound? Minimum 3-4 sentences may be required for this part. | This manuscript demonstrates scientific correctness and robustness through its clear and systematic methodology. The use of both 2D and 3D culture models, with precise measurements of cell axes, provides a comprehensive comparison of cellular morphology. The statistical analysis of cell dimensions, including mean values and standard deviations, strengthens the reliability of the results. Additionally, the use of a collagen hydrogel to mimic the extracellular matrix in the 3D culture ensures that the study accurately reflects physiological conditions, making the findings relevant and technically sound for the scientific community. | |
| Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. | Ok | |
| Minor REVISION comments | | |
| Is language/English quality of the article suitable for scholarly communications? | Check overall thoroughly | |
| Optional/General comments | | |

Review Form 3

PART 2:

| | Reviewer's comment | Author's comment <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> |
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| Are there ethical issues in this manuscript? | <i>(If yes, Kindly please write down the ethical issues here in details)</i> | |

Reviewer Details:

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| Department, University & Country | Assam University, India |