Reviewer’s report

Title: Colchicine causes prenatal cell toxicity and increases tetraploid risk

Version: 0 Date: 31 Aug 2019

Reviewer: Beibei Huang

Reviewer's report:

Researchers have studied the effect of colchicine which focuses on pregnant women and foetuses. This topic fits the scope of Pharmacology and Toxicology and the results attractive.

As declared in page 6 "Primary cultures of CVCs and AFCs are widely used in prenatal genetic diagnoses", any reference or citations justify the evaluation of the toxic effects of colchicine on the placenta and foetus? I suggest authors to consider toxic effect on DNA synthesis, since last century lots of literactures discussed its interaction with DNA.

p9 line 3, why chose these 7 surface biomarkers? Any justification for it? CD29 and CD73 are broadly used for investigating cellular characteristics and the corresponding functional behaviours. What about the others?

p9 line 31, In cell apoptosis assay, please list the configuration of the cell culture protocol?

p3,9 Similar question, any known reason for the analysis of diploid and tetraploid cells? Supporting evidence from other literatures citing here will be better.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Yes
I recommend additional statistical review

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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