Reviewer’s report

Title: Colchicine causes prenatal cell toxicity and increases tetraploid risk

Version: 1 Date: 07 Oct 2019

Reviewer: Marcia Ratner

Reviewer's report:

"Here, we demonstrated that toxic effect of colchicine on CVCs and AFCs was inhibiting cell proliferation, which was consistent with its resulting in pre-term birth, short gestational age and low birth weight."

This statement is speculation since the work presented in this paper does not "demonstrate" an effect of colchicine on preterm birth risk per se and there is no evidence it does this in vivo. At best this works suggests there is an association between factors previously implicated in pre-term birth in an in vitro model which may not necessarily extend to in vivo effects of colchicine per se for various reasons. In addition, previous studies do not suggest this outcome is occurring in humans. ON the contrary, colchicine use has not been associated with an increased risk of fetal malformations or miscarriage (Ben-Chetrit et al., 2004; Indraratna et al., 2018).

Recommendation is to reject.

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

No

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

No

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

No

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.

I am able to assess the statistics
Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal