

Reviewer's report

Title: Antiprogestin mifepristone inhibits the growth of cancer cells of reproductive and non-reproductive origin regardless of progesterone receptor expression

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Reviewer: Patricia Garcia-Lopez

Reviewer's report:

The present study demonstrated the efficacy of antiprogestin mifepristone on a panel of cancer cell lines. The authors show and discuss that for inhibitory effect of mifepristone is not required the progesterone receptor expression. This is an interesting work that opens the possibility to propose to mifepristone as a candidate to be evaluated, both in preclinical as clinical studies, in the treatment of carcinomas that does not respond to hormonal treatment. The results are consistent with other authors, who have shown a cytotoxic effect, not only with mifepristone, but also with other anti-hormonal agents on cells with ER (-) or PR (-). The results in this study are interesting. However, some points should be clarified by the authors.

Discretionary revisions:

1. ¿The experiments were designed in a phenol red- and steroid-free culture medium? This question is due to that some authors have established that the expression of hormonal receptors is influenced by steroids of the culture medium.
2. It would be nice to mention in the discussion a bit more about the other mechanism, not related with the cell cycle or hormonal receptors that could be involved in the antiproliferative effect of mifepristone.
3. The author should give a short statement on the limitations of their model.
4. Would you include a short statement: "What other studies are planned for the future or which are the next steps" for this compound.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests´