

Reviewer's report

Title: Embryonic exposure to the fungicide vinclozolin causes virilization of females and alteration of progesterone receptor expression in vivo: an experimental study in mice

Version: 1 **Date:** 7 October 2005

Reviewer: Duncan T. Wilcox

Reviewer's report:

General

This is an interesting paper looking at the effect of a fungicide on genital tubercle development. The study appears well designed and the authors discussion addresses the complicated issue of why the same compound both virulises females and undervirilises males.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. Page 5 NOAEL should be spelt out completely the first time it is used.
2. Page 7. RT-PCR Methods. I am assuming that control animals were also used, this appears to be the case in the results. If so it should be mentioned here more clearly. If not then the authors need to explain why they did not use a control.
3. Page 9. RT-PCR is used as a title on this page it does not seem to fit in, I suspect this is a typographical error and it should be removed. Also the paragraph starting "When the treated males..." is not very clear and I think it needs to be expanded on
4. Page 10. I am concerned that the outlier has been removed especially as there was only 6 Dams in each group. How does this effect the statistics. I would like to know what a statistician thinks of this.
5. Table 1. There is a typographical error I do not think that 46 was meant to be repeated.

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article of importance 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.