Reviewer's report

Title: Effects of liarozole fumarate (R85246) in combination with tamoxifen on N-methyl-N-nitrosourea (MNU)-induced mammary carcinoma and uterus in the rat model

Version: 1 Date: 5 June 2006

Reviewer: Henry J Thompson

Reviewer's report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
While the topic of this manuscript is of interest, there are apparent inconsistencies between what is described in the Methods section and the information provided in the legend of Figure 1 that make it difficult to interpret the study findings. Specifically, were animals in the tumor growth study ovariectomized as indicated in the legend of Figure 1? If they were, what is the rationale for expecting tamoxifen to have an effect on tumor growth? Similarly, what is the rationale for expecting an aromatase inhibitor to work in an ovariectomized rat since it does not appear that rat adipocytes have aromatase activity; the authors should indicate where they expect the aromatase inhibitor to be exerting its effects. Other concerns are detailed below:

- The data shown in Figure 1 appear to be smoothed growth curves. It would be more informative to show the actual data with error bars graphed.
- While brevity has merit, there is essentially no discussion of the data presented, and the discussion that is presented is vague. The lack of discussion implies that the findings have limited importance.
- What do the authors think is the basis of liarzorole’s apparent reduction of tamoxifen’s effect on the uterus?
- The authors use a very vague term, “anti-tumor” to describe the activity of liarzorole. This could be misleading to some readers. The compound slowed tumor growth rate; it did not induce tumor regression and it appeared to antagonize the effects of tamoxifen. Only tamoxifen induced tumor regression which is the desired outcome in this model.
- Since lairozole did not induce tumor regression and antagonized the effects of tamoxifen, the conclusion stated in the abstract is too strong.

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

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Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
I declare that I have no competing interests.