Reviewer's report

Title: N-nitrosomethylurea in the mammary gland: is there a non-carcinogenic dose?

Version: 1 Date: 16 March 2009

Reviewer: Franca Formelli

Reviewer's report:

The authors accurately describe the relationship between the dose of NMU administered and the occurrence of neoplastic and non-neoplastic abnormalities in the mammary glands of Wistar-Furth rats.

Minor essential revisions.

1) The reported results clearly indicate that a true "non-carcinogenic" NMU dose is difficult to be defined. However, due to the range of dose investigated, the authors can only conclude that the lowest dose tested (10 mg/kg body weight) causes microscopic lesion and they cannot exclude that lower doses cause no histological changes.

Therefore the title and the abstract should be slightly modified. The title should describe the results and in the abstract, line 3: in order to ascertain whether a truly "non-carcinogenic" dose of NMU exists ...... at this aim, much lower doses should have been tested.

2) In the materials and methods section, the authors should specify that groups of 30-40 rats were used

3) In the results section, first paragraph, lines 8, 10: tumor number should replace tumor burden

4) table 1 is confusing: the headings should be "all NMU doses" below 12 weeks and 22 weeks, "50 mg NMU/kg BW" below 25 weeks and "all NMU doses" below 30 weeks.

5) figure 1 and 2 legends: n= 29-40, /group should be added

Level of interest: An article whose findings are important to those with closely related research interests

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'