Reviewer's report

Title: Similar effects of active and passive maternal tobacco smoke exposure on in utero mutagenesis

Version: 1 Date: 16 March 2005

Reviewer: Paolo Boffetta

Reviewer's report:

General

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

1. The differences in the smoking prevalence between the two studies (first para. under ‘combined data’ are not relevant to the main point of the study and most likely reflect differences in the two populations. What however might be relevant are the lower HPRT Mf values (in particular among exposed) in the study by Finette as compared to the study by Manchester: these difference should be mentioned and commented upon (higher exposure in the latter study?). In general, quantitative information on exposure (e.g., cigarettes/day among active smokers, duration of exposure among passive smokers) would help in the interpretation of the results.

2. The results presented in table 2 should go under some form of statistical analysis, to test whether the differences observed in prevalence of difference types of mutations can be attributed to chance only.

3. The methods used in the study should be clarified. Specifically, it is not clear whether the authors had access to the raw data from the two studies, whether additional analyses were performed, or whether the whole work was based only on the published results (and therefore all the information under ‘data’ refers in fact to the original publications).

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

4. The fact that all results refer to HPRT mutations should be made clear in the title and the abstract.

5. In general, there is an over-interpretation of the role of HPRT mutations as (i) marker of exposure and (ii) marker of health effect.

Discretionary Revisions (which the author can choose to ignore)

Which journal?: Not appropriate for BMC Medicine: an article whose findings are important to those with closely related interests and more suited to BMC Pregnancy and Childbirth
Unable to decide on acceptance or rejection until the authors have responded to the 
major compulsory revisions

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests