Reviewer's report

Title: Analysis of the Effects of Exposure to Acute Hypoxia on Oxidative Lesions and Tumour Progression in a Transgenic Mouse Breast Cancer Model

Version: 1 Date: 19 November 2007

Reviewer: Dirk Vordermark

Reviewer's report:

General

The manuscript describes a straightforward analysis of the effect of acute (intermittent) hypoxia on the level of a specific mutagenic DNA lesion and corresponding tumor progression in a breast cancer mouse model. Whereas the former was significantly increased by hypoxia treatment, the latter remained unchanged, which led the authors to conclude that oxidative stress may not be of great importance in tumor progression in this model.

The design of the study as well as the presentation of the results is clear and the discussion is adequate.

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

page 8, top paragraph: It should be described how the plasma was obtained and prepared for analysis.

discussion (Fig. 3A): The differences in primary tumor burden between cage controls and aerobic controls should be discussed critically.

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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)

page 5, bottom paragraph: Please clarify that the total (daily) treatment time was 4 hours.

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Discretionary Revisions (which the author can choose to ignore)
What next?: Accept after minor essential revisions

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

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

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