Reviewer’s report

Title: Growth and metastases formation of human malignant mesothelioma cell lines orthotopically implanted into the pleural cavity of immunodeficient mice.

Version: 9 Date: 10 January 2006

Reviewer: Amir Onn

Reviewer’s report:

General

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

Major comments:
1. The paper has to be read by a medical editor and has to be corrected for language and typographic mistakes. It cannot be published otherwise.
2. Please correct the following mistakes:
   a. First line of background in abstract, MPM is mainly caused by asbestos. This is not the sole cause. In any event this section may be shorten and this line may be deleted since the authors repeat this data in the background section of the manuscript.
   b. In this section of background in abstract, the authors refer to increase of inflammation and secretion of growth factors induced by other models of mesothelioma. However, they do not provide data on the level of inflammatory cytokines and growth factors in their model. Thus, this comparison is not appropriate. The authors should do one of the following: add the relevant data based on results of their model, or delete these sentences from the manuscript.
   c. Overall section of background should be much shorter and section of results much longer.
   d. Methods, immunohistochemistry: CD31 is not a marker of angiogenesis. Rather, it is a marker of endothelial cells.
3. Tables are too long and complicated. Do data in horizontal lines refer to days? I recommend changing the presentation mode since they refer to only 5 mice each.

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

Minor comments:
1. Pleural effusion is a clinical hallmark of mesothelioma. Section of results in abstract should present the authors data on this phenomenon.
2. References: Add Albelda SM, who published a lot on mesothelioma models.
3. Methods, cell lines – clarify that these are human cell lines.
4. Methods, section of Orthotopic implantation… 3rd line from end of section. I assume cells were not cultured for 4 months. Please revise.
5. Methods, autopsy and histology. Tumor nodules vary in size, how did the authors measure this?
6. Methods, immunohistochemistry: Please provide source of antibody.
7. Methods, H&E. What was the protocol for the procedure?
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 importance in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No

**Declaration of competing interests:**

'I declare that I have no competing interests'