Reviewer's report

Title: Survivin gene silencing sensitizes prostate cancer cells to selenium growth inhibition

Version: 1 Date: 11 November 2009

Reviewer: Stacy Loeb

Reviewer's report:

This is a very well-written study which involved a significant amount of work. The hypothesis is clearly stated.

Major Compulsory Revisions

1. Methods: how were normal prostate tissues obtained during renal transplant procedures-- from living patients? This might be explained. Did the study have institutional review board approval? Also, on p. 13 of Methods why would any p-value threshold other than p<0.05 be used to define statistical significance? - would clarify this.

2. Results: Would be interesting to know more details about the 4 prostate cancer cases in which survivin was not expressed- for example, were they very small, indolent low-grade tumors? Some comparison of tumor features between cancers that did and did not express survivin would be an informative addition to the work.

3. Discussion: would add a short limitations section-- ex: before concluding that their results suggest a potential strategy for anti-cancer therapeutics, would highlight that much of this work was done in a mouse model, so additional translational work would clearly be necessary before this can be incorporated into clinical practice.

Minor Essential Revisions

1. Abstract may be unclear what MTT stands for. Abstract results says "surviving" twice instead of survivin. Also some empty boxes that should be deleted.

2. Methods has typo in 1st sentence methylselenocysteine

3. p. 17 1st word "gavage" - what is this?

4. p. 17 para 2 electroporation misspelled

5. Discussion p. 20, 3rd to last word "prostate" typo

Discretionary Revisions

1. Upon reading the introduction it seemed glaring that the SELECT trial was not mentioned (only the evidence supporting selenium in prostate cancer prevention). Later the SELECT Trial is thoroughly described in the Discussion, but you might consider at least a reference in the Introduction.

2. How did the researchers decide on day 35 to sacrifice the mice? It might be
informative to include some commentary on what is felt to be the biologically relevant period of exposure to selenium

**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