Reviewer's report

Title: JS-K, a glutathione/glutathione S-transferase-activated nitric oxide releasing prodrug inhibits androgen receptor and WNT-signaling in prostate cancer cells

Version: 1 Date: 8 December 2011

Reviewer: D. Robert Siemens

Reviewer's report:

major compulsory revisions.
1. Statistical analysis in Figures 2 and 6 is inappropriate. The authors need to take into account repeated measures. An ANOVA with a post-hoc correction for repeated measures is appropriate and would likely show similar results.
2. The WNT studies are interesting but not justified in the introduction and discussion. They are not additive to the story around androgenic function at least based on the manuscript as written. Consideration should be taken of justification for adding these to the manuscript or removing this completely.
3. The authors need to comment on the rationale for using different cell lines (PC3 which is a very contentious cell line in prostate cancer investigations) when looking at AR regulation. These studies (Figure 3 and 4) should preferably be repeated in the other cell lines to confirm their suppositions on mechanism.

minor essential revisions
4. Reference 45 is described incorrectly with 29 patients involved not 17.
5. The authors should comment at least on the limitations of the MTT assay as a read-out on cell proliferation. Further studies on phenotypic outcomes would be preferable to the MTT assay (colony formation assays for example).

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

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

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