Reviewer's report

Title: The molecular basis of phytoestrogen Genistein induced mitotic arrest and exit of self-renewal in embryonal carcinoma and primary cancer cell lines

Version: 1 Date: 7 August 2008

Reviewer: Thomas Wang

Reviewer's report:

It is the opinion of this reviewer that the manuscript requires “Major Compulsory Revisions”. The manuscript by Christian RA Regenbrecht et al Titled " The molecular basis of phytoestrogen Genistein induced mitotic arrest and exit of self-renewal in embryonal carcinoma and primary cancer cell lines” addresses an important question regarding the molecular effects of pharmacological doses of genistein, a well known candidate cancer preventive/therapeutic agent. Although the experiments appeared to be well designed, the manuscript only provides descriptive information. There are several similar papers in the literature (see below), it would be more informative if experiments such as siRNA for specific protein be carried out to confirmed the effect of genistein. At a minimum the authors may consider comparison to existing databases of published results to identify similarity or differences between cell lines etc. and discussed accordingly. The concentration used also of concern, as 50 microM may not be achievable even at pharmacological dose and need to be discussed. There are also typos such as “phytoestrogen” in the title need to be corrected. It is with regret that this reviewer cannot consider the manuscript acceptable for publication at present form.

Davis DA, Sarkar SH, Hussain M, Li Y, Sarkar FH.
Increased therapeutic potential of an experimental anti-mitotic inhibitor SB715992 by genistein in PC-3 human prostate cancer cell line.

Mol Carcinog. 2006 Dec;45(12):943-56.


Lee WY, Huang SC, Tzeng CC, Chang TL, Hsu KF. Alterations of metastasis-related genes identified using an oligonucleotide microarray of

**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