Reviewer's report

Title: Anticancer activity of an extract from needles and twigs of Taxus cuspidata and its synergistic effect as a cocktail with 5-fluorouracil

Version: 1 Date: 17 August 2011

Reviewer: Nik Soriani Yaacob

Reviewer's report:

Minor Essential Revisions

No. Line/Section Comments
1. 36 Add “by fluorescent and confocal microscopy” at the end of the sentence “… and TUNEL staining)
2. 46 “cancer cells growth” should be replaced with “cancer cell growth”
3. 57 “may be” should be replaced with “may have”
4. 66 “the rapeutically” to be corrected to “therapeutically”
5. 81 “one of most” should be replaced with “one of the most”
6. 85 Scutellaria baicalensis should be written in italic
7. 104 & 107 “including” should be removed
8. 110 Include other supplements used in the culture medium, if any
9. 167 – 168 Add “from the animals” into the sentence “… were collected…” and state how blood samples were collected eg., via tail vein
Add “with 5-FU” at the end of the sentence
10. 187 “agreed with” should be replaced with “found in this study are in agreement with previous reports”
11. 195 “including” should be replaced with “namely”
12. 197 “at rates of” should be replaced with “by”
13. 198 In order to correspond with Fig. 1B, “97% for KB cells” should be placed before “76% for Bel-7402”
14. 222 “Combined with 5-FU the TC extract has” should be replaced with “Combination of 5-FU and TC extract produced”
15. 232 State the concentration of 5-FU
16. 241 “indicated” should be replaced with “indicates”
17. 247 “synergic” should be replaced with “synergistic”
18. 278 “synergetic” should be replaced with “synergistic”
19. 291 & 298 “el al” should be replaced with “et al”
20. 296 Please add “of TC and 5-FU” following “the cocktail”
21. “therap” should be replaced with “therapy”
22. Abbreviation for V/F is missing
23. “Figures” should be replaced with “Figure Legends”
24. “anticancer” should be replaced with “cytotoxic” or “cell growth inhibition by”
25. Figure 3 State the staining used
26. Need a clearer sentence for “..Fraction Affected …denotes fraction affected”.

Major Compulsory Revisions

No. Line/Section Comments
1. 75 The sentence “DaKeSu, a TC extract…..” needs to have references
2. 77 The sentence “Chinese language sources have reported…..” needs to have references
3. 117 Is the 12h fast necessary since the 5-FU was given by intraperitoneal injection and not orally?
4. 132 Please state the culture conditions for the MTT and ATP assays, eg., cell density, treatment doses and duration
5. Methods Some description of the cell culture conditions such as culture vessel, cell density, treatment doses and duration should be provided for the cells used for histology, immunohistochemistry and flow cytometry work
6. 170 Need brief description of the procedure used
7. Methods For CI determination, details on the culture conditions, including doses of TC extract and 5-FU for single and combination treatments (eg., concentration ratio) should be provided
8. Methods It is not clear as to why different cell lines were used for the study of growth inhibition, apoptosis and synergistic effect of combined treatment.
9. Results The percentages of cells accumulated at different phases of the cell cycle should be presented and statistical analysis performed
10. 249 – 256 How was counting done? What about statistical analysis? It is arguable that this part of the study is confirmatory especially with respect to synergism, additive or antagonism. Perhaps the sentences can be restructured such that the observations provide additional support to earlier results rather than confirmatory.
11. 259 Add a brief description of results obtained in Fig. 7
12. Discussion Drug-herbal interactions could affect the clinical benefits of the drug or the herbal extract or even result in exaggerated toxicities. As such, the Discussion section should include some information on this aspect with known examples. The significance of pharmacokinetic and pharmacodynamic studies should also be highlighted
Limitations of the study should also be described

13. Pharmacokinetic data can be used to predict the likelihood of an interaction between the TC extract and 5-FU. But can the absence of significant changes in pharmacokinetics be extrapolated to mean that the extract would not alter the side effects of 5-FU?

14. The statement “Therefore the cocktail is advantageous for enhancing the efficacy and diminishing the side effects of multi-targeted cancer treatment” is an over interpretation of the results obtained. Please re-construct sentence.

15. Table 1 Please describe each abbreviation and state the statistical method used in the legend

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

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

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

**Declaration of competing interests:**

I declare that I have no competing interests