Reviewer's report

Title: Cephalotaxus griffithii Hook.f. needle extract induces cell cycle arrest, apoptosis and suppression of hTERT and hTR expression on human breast cancer cells

Version: 2
Date: 7 July 2014
Reviewer: Louis Yen

Reviewer's report:

This study focuses on an important issue that the use of alternative treatment to control the cancer growth with associated reduction in cancer caused deaths. Overall, this study should be accepted for publication. Several adjustment in writing related to result and conclusions are suggested to make the study to have a straight forward presentations for the readers to understand the significance of the current study.

The improvements suggested:

1. For Table 1 and Figure 1, an average of 3-treatments of A, B, C, were presented, respectively. However, the detailed labels for both Table 1 & Figure 1 should be showed with in the Table and Figure. A conclusion sentence with detailed findings of Table 1 & Figure 1 should be presented in the article. The authors should move the Figure legends in page 22-23 to the results section. It may read as “For example, Table 1 demonstrated that, there were significant treatment differences observed among the average “life” of the extracts treatments on cancer cells, where the PE extracts showed the best treatment results in all three different cancer related cells in both average human cancer cell viability (Table 1; p<0.001) as well as in the comparisons of the 6 levels of viability measured by concentrations showed in Figure 1 (P<0.01). It showed PE extract inducted maximal death in ZR751 cells. “

2. The review believes the Figure 2 A&B were not necessary to presented in the paper, since the comparisons between the 3 treatment in 3 cells have been presented in Table 1 & Figure 1—and Figures 2A & 2B just showed the best treatment results of PE extract in ZR751 cells. The Figure 2A & 2B did not present additional evidence to support the conclusions from Table 1 & Figure 1, no comparisons were made there. It is suggested to remove Figure 2 from the article.

3. Page 11 & 22, the authors may re-write the findings of Figure 3 which make more clearly conclusion about the results of effects of PE extract on cell distribution in ZR751 cells.

4. Page 23 & 11, like Figure 3, the writings for Figure 4 on pages 23 and 11 should be combined to clearly express the findings of Figure 4—i.e., “PE extract treatment causes a greater caspase-dependent apoptotic cell death in human
breast cancer cells in both mean and caspase-3, -8 and -9 activity assay, respectively (p<.005). “

5. Is the story of P53 has been showed and discussed in Figure 4? The figure 5s, like Figure 2 may be eliminated—the author does not need to repeat the finding of a particular PE treatment of P53—it does not add learnings from previous companies by presenting one of the treatment effect.

6. Pages 12, 13 & 23, 24, Similar to Figures 1&2, 4&5, the reviewer believes the authors should stay on focus to present the comparison results, not both comparison and its effects on unique phytochemicals.

Since the authors conclude that a further study is needed for PE extract effects on cancer cell death. The review suggests the author should focus on the treatment effects of PE extract and non-PE extract and focus the results, conclusions and discussions on these. As a non-cell biologist, the review believes the author should have more focused analyses and presentations. However, the study did show its scientific value for the alternative treatment of cancer.