Reviewer's report

Title: Induction of cell cycle arrest and apoptosis in MCF-7 cells by Dillenia suffruticosa root extract via reactive oxygen species formation and multiple signaling pathways

Version: 2 Date: 14 February 2014

Reviewer: Yasmin Anum Mohd Yusof

Reviewer's report:

Major Compulsory Revisions

1. The research question as to why this extract was used in the present study is not well defined according to the title of this study. The authors would like to propose a mechanism using multiple pathways, however the pathways were not defined in the Introduction and as to why were these pathways chosen?

2. Since this is an extract (D. suffruticosa) which is unique to local interest, the study should be compare to a well known breast cancer chemotherapy drugs such as tamoxifen.

3. The methods used in this study is appropriate and well described, however the authors did not state the name and place of the manufacturing company.

4. The discussions and conclusion however is not well balanced. The authors needs to justify figure 6 (proposed mechanism) further by extracting from own's experiment and other related experiment from authors previous study as well as other similar studies by other authors. There seemed to be no flow of thoughts in the discussion to lead to the conclusion and the proposed mechanism.

5. The discussion on MCF-7 cells being caspase 3 deficient may be inappropriate here since the authors did not evaluate caspase 3 in their study.

6. The authors should declare in the Methods section that this extract is still in the process of patenting or has it been patented?

7. Limitations of the work are not clearly stated in the study.

8. The title of the study "Induction of cell cycle arrest and apoptosis in MCF-7 cells by Dillenia suffruticosa root extract via ROS formation and multiple signaling pathways" does not reflect fully to the abstract and the introduction, in which the authors were emphasizing multiple pathways in the mechanism of anti-tumour of this extract. The authors did not mention which pathways they are suggesting in the Introduction section and why were these pathways chosen?

9. The manuscript/study is acceptable if all the above questions raised are responded and attended to.

10. The paper needs to be corrected for grammatical errors.
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: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests in relation to this paper.