Reviewer’s report

Title: Pro-apoptotic and anti-adhesive effects of four African plant extracts on the breast cancer cell line MCF-7

Version: 5  Date: 9 August 2014

Reviewer: Hsueh-Wei Chang

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Minor Essential Revisions

1. [Figure legend] Fig.1B: Please replace the “apoptosis” with “subG1 phase” in the legend and Y-axis of Figure 1B.

2. [Fig. 2]: The double staining for annexin V/PI for “ZI” showed 15.8% (Q2 region) and 57.9% (Q3) in Fig. 2A in representative plot. Fig. 2B show the statistic results for ZI in 7.05±2.34 and 34.43±7.82 for Annexin V/PI (Q2) and PI alone (Q3). However, I cannot figure out the data. For example, the late apoptosis in Q2 did increases to 15.8% but the table in Fig2B showed 7.05±2.34. Please check the calculation again.

3. [Results and Discussions-page 12]: “Surprisingly, only the treatment with 10 µg/ml ZI showed a moderate Annexin V labeling, as an indication of early apoptosis induction.”. Actually, the author show the ZI for Annexin V is 1.16% (Fig. 2B). I will suggest the authors to delete the description for the above sentence for “early apoptosis” but to mention the Annexin V/PI (late apoptosis) for ZI which is indeed highest in these compounds according to Fig. 2B.

4. [Results and Discussions-page 12]: “PS, and especially JCP1 and JCP2 induced only late apoptotic or necrotic events, verified by high amounts of PI-positive cells.”. Except ZI, the other compounds show little positive for annexin V alone or Annexin V/PI (Fig. 2B), therefore, it is unsuitable to mention about the apoptosis, where the Annexin V (+)/PI(-) is early apoptosis and Annexin V (+)/PI(+) is late apoptosis. Therefore, I suggest to change this sentence as follows: “PS, and especially JCP1 and JCP2 induced only necrotic events, verified by high amounts of PI-positive cells.”

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 that I have no competing interests