Reviewer's report

Title: Beta-sitosterol induces G1 arrest and causes depolarization of mitochondrial membrane potential in breast carcinoma MDA-MB-231 cells

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Reviewer: Gagan Deep

Reviewer's report:

In the present study Vundru et al have analyzed the effect of #sitosterol on the 3 cancer cell lines and identified that #sitosterol is effective against breast carcinoma cells. It is an interesting study and authors have presented the effect of #sitosterol on cell cycle and apoptosis related signaling molecules. Manuscript is very well written and results have translational implications in the prevention and treatment of breast cancer.

Discretionary Revisions

Authors need to discuss the possible reasons or mechanisms for the efficacy of #sitosterol specifically against breast cancer cells (involvement of estrogen receptor etc?). Authors should also mark or highlight morphological or structural changes (with arrows) in the figure 4.

Level of interest: An article of outstanding merit and interest in its field

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 interest'