Reviewer's report

Title: Targeting beta-Catenin signaling to induce apoptosis in human breast cancer cells by z-Guggulsterone and Gugulipid extract of Ayurvedic medicine plant Commiphora mukul

Version: 2 Date: 22 May 2013

Reviewer: Dhyan Chandra

Reviewer's report:

This is an interesting study and authors have provided sufficient evidence to show that GL induces apoptosis and possesses anticancer activities. Authors should provide further evidence to support/improve this manuscript.

Major Compulsory Revisions

Authors should perform a set of experiments using HMEC cells for all key figures to show that GL does not induce apoptosis or not toxic to normal cells.

Authors should use caspase inhibitors to support their conclusion that GL induces caspase-dependent apoptosis.

Minor Essential Revisions

The colony formation assay for HMEC cells may not be appropriate because normal cells do not divide indefinite like cancer cells.

In Figure 4 beta-catenin was detected as doublets whereas in the rest of the Figures, beta-catenin was detected as single band. Authors should clarify/justify this point.

Since GL is extract, authors should explain how they decide use concentration in micromolar.

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:

No COI