Reviewer’s report

**Title:** Equol enhances tamoxifen's anti-tumor activity by induction of caspase-mediated apoptosis in MCF-7 breast cancer cells

**Version:** 3  **Date:** 28 March 2013

**Reviewer:** Omer Kucuk

**Reviewer’s report:**

The authors have investigated the mechanisms of equol and its potential interaction with tamoxifen in breast cancer cells. They report that equol and tamoxifen has pro-apoptotic effects and their combination is more effective. Equol is a metabolite of soy isoflavone daidzein and the results of this study show that soy isoflavones may be used in breast cancer prevention and treatment alone or in combination with tamoxifen.

1. No compulsory revisions.
2. Minor revisions: The last word of the last paragraph should be "warranted" not "warrant".
3. Discretionary revisions: Since soy isoflavones also include genistein, daidzein which are the main isoflavones consumed and have high enough concentrations in the serum, it would be interesting to compare the combinations of equol with genistein and daidzein together with tamoxifen to investigate their combined effects on breast cancer cells.

**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 interests.