Reviewer’s report

**Title:** A synergistic antiproliferation effect of curcumin and docosahexaenoic acid in SK-BR-3 breast cancer cells: unique signaling not explained by the effects of either compound alone.

**Version:** 3 **Date:** 26 February 2011

**Reviewer:** Natale D'Alessandro

**Reviewer's report:**

Minor Essential Revisions:

Though the authors have made some valuable revisions, I remain convinced that the paper would have been better improved by:

- performing experiments on a wider range of breast cancer cell lines to support the suggestion that CCM + DHA may be selectively synergistic in ER-/PR-/HER2+ breast cancer cells; in fact, it is not said that the synergy between CCM + DHA depends on the particular ER-/PR-/HER2+ phenotype, but it might be related to some other, independent, properties of SK-BR-3 (that, e.g. render them able to accumulate more CCM in presence of DHA);

- relevant findings on transcript levels (e.g. CYPs, SERPINB5, etc) and speculations thereof should be corroborated by Western blot analyses (mRNA levels do not always reflect changes in protein levels).

Therefore the authors should adequately make clear the two aforementioned points.

In figure 6, a, b,c, legends y axes, fold increase with respect to what?? please clarify.

**Level of interest:** An article whose findings are important to those with closely related research interests

**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.