Author's response to reviews

Title: Control of the growth of human breast cancer cells in culture by manipulation of arachidonate metabolism

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Author's response to reviews: see over
Reviewer #1

Major compulsory revisions:
1) Material and methods: How were the test substances dissolved. How was the final concentration of the dissolving agent?
The details have been added to the materials and method section.

2) Material and methods: How many replicates have been used for each concentration? How many independent cell experiments have been conducted?
All experiments were carried out in triplicates. Details added to the text.

3) Statistics: The statistical calculation is completely missing.
Added the statistical analysis to the text in the materials and method section.

4) Discussion: It has been shown that COX-2 inhibitors have a proapoptotic effect in MCF-7 cells (Teh et al. J Cell Biochem 2004; 91: 796) and antiproliferative effect in various tumor cell lines. How do the authors explain the discrepancy of these results to the results found in the present manuscript?
It was a misstatement. The statement has been deleted from the text. Some of the inhibitors such as Curcumin that inhibit COX also showed inhibition of MCF-7 cells.

Minor compulsory revisions:
1) Figures: What values are depicted, means ±SD?
Added explanation to the figure legends. We probably need to expand what we mean by standard deviation, what formula we used etc

2) Figures: In the Figures 1,3 and 4 the standard deviation is not shown for all testing points.
The standard deviation has been corrected in the figures.

Reviewer #2
Major Compulsory Revisions
ADD the comments here:::

According to suggestion of reviewer 2 we have performed the assay to measure the activity of 5-LO in these cells in the presence of inhibitors. We have carried out a lipoxygenase assay to validate the inhibitory effect of these compounds in MCF-7 cells. The data is presented in the new in figure 3.

The diverse array of inhibitors the authors used makes little sense and strongly detracts from the focus of the paper. Not all of them may even apply to arachidonic acid metabolism as their primary mechanisms of action. The paper would have been much better focused had they just reported on COX and 5-LOX inhibitors with the corresponding cellular determination of enzyme content and product formation as mentioned above.
The suggestion was good and we made additional changes to the paper. We excluded the data on PKC inhibitors from this manuscript to keep it focused to the AA pathway.

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