Reviewer's report

Title: Evaluation of a curcumin analog as an anti-cancer agent inducing ER stress-mediated apoptosis in non-small cell lung cancer cells

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Reviewer: Siyaram Pandey

Reviewer's report:

The MS entitled "Evaluation of a curcumin analog as an anti-cancer agent inducing ER stress-mediated apoptosis in non-small cell lung cancer cells" by Wang et al reports a very interesting finding. Experimental planning, rationale and results are excellent. Authors have written the methods, results and discussion appropriately. Thai group has synthesized a large number of curcumin derivatives, and after screening, they got one derivative with selective toxicity to human cancer cells. Interestingly, they have observed that B82 causes ER stress indicated by upregulation of CHOP and GRP 78, in cancer cells leading to apoptosis. They do show that siRNA inhibition of CHOP render cancer cells resistance (to some extent) to B82. I find the MS acceptable for publication in BMC Cancer. I would suggest some discretionary revisions;

1. There are some grammatical and spelling errors, please correct.
2. On page 10, last line. authors mention that "siRNA reversed the effect of B82...). This is not correct, if at all it reduces the effect of B82.
3. Do normal non-cancerous cells show any sign of ER stress? I would like this to be discussed as how cancer cells are vulnerable to ER stress.

Level of interest: An article of importance 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'