Author’s response to reviews

Title: The in vitro cytotoxic activity of ethno-pharmacological important plants of Darjeeling district of West Bengal against different human cancer cell lines

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Author’s response to reviews:

To
James Ellis D. Prozenko
Journal Editorial Office
BioMed Central

Re: Letter Addressing the Reviewer’s Comments and Submission of Revised Manuscript MS: 2045626151440083

Dear Dr Prozenko

At the onset, I would like to extend my gratefulness for the meticulous review of the MS. I am submitting the revised MS for your appraisal with anticipation of getting it published in your valued journal.

Please find below our response to each point brought up by the reviewers.

Response to reviewer’s comments

Reviewer #1:
1. Minor Essential Revisions:

a. In vitro cytotoxic activity:
-The sentence “To solubilize the formazan, 50µl of isopropanol was added to each of the well.” Should be “To solubilize the formazan, 50µl of isopropanol was added to each well.”

b. Thin layer chromatography (TLC) and phytochemical analysis:
Page number 9; the word” Lieberman-Buchard’s reagent” should be corrected to “Lieberman-Burchard’s reagent”

Response to a & b: The corrections as suggested have been incorporated in the text.
c. Results and Discussion:

1ST and 3rd paragraphs are too long and should be reduced into two paragraphs each.

Response: We agree with the reviewer and have reduced the said paragraphs into two paragraphs each.

d. Abbreviations should be standardized as when the whole word mentioned for the first time with its abbreviation and then abbreviated afterward.

Response: We thank the reviewer for pointing this out. Corrections have been made accordingly in the revised MS.

2. Discretionary Revisions:

a. Authors have screened the 30 medicinal plants randomly for their cytotoxic effects on the three cancer cell lines (HeLa, MCF7 and HepG2), However they haven’t justify using these particular cell lines.

Response: This is a highly relevant point raised by the reviewer. In a recent report in one of the leading news magazine “The Times of India” it has been reported that West Bengal has slowly but steadily emerged as the dreaded cancer zone in the country (Cancer runs deep in rural Bengal- Prithvijit Mitra, TNN | Apr 15, 2014, 02.16AM IST). In a multi-centre based study in West Bengal, Dr Chatterjee has mentioned that the most frequently cancer affected organs were breast, cervix, stomach, lung, oesophagus, ovary, cheek, prostrate, liver and pancreas, gall bladder and tongue (Asian J Epidemiology 2011, 4(1):23-27). Based on this and availability in our laboratory, we used the three cancer cell lines HeLa (cervix), MCF7 (breast) and HepG2 (liver). In consent with the reviewer’s valuable opine, we have included the justification of using the particular cell lines in the revised MS.

b. In addition, searching for anticancer drugs from medicinal plants should be based on their traditional use for treatment of cancers among the people using them (Do the natives of Darjeeling district use all these 30 medicinal plants to cure cancer?). I suggest the authors to include a table showing the traditional use of each plant or to add a column to table number 1.

Response: There is no documentation of the use of the 30 plants in our study to cure cancer; however, there is a possibility that they may have ‘yet to discover’ constituents with potent anticancer activity. We do agree that there are studies in which searching for anticancer drugs from medicinal plants are based on their traditional use for treatment of cancers among the people using them. In addition, there are many reports where attempts are made to screen plants traditionally used in different parts of the world, for the treatment of a variety of diseases (not cancer), for their cytotoxicity against cancer cell lines (In vitro cytotoxic screening of selected Saudi medicinal plants- Almehdar et al. J Nat Med (2012) 66:406–412; In vivo toxicity and antitumor activity of mangosteen extract- Kosem

Reviewer #2:
The MS is worth for publication with more improvement in English language and with minor changes in MS.

1. The title of MS should be changed it may be “The In vitro cytotoxic activity of ethno-pharmacological important plants of Darjeeling district of West Bengal against different human cancer cell lines.

2. In line no. 39 put the word In vitro before word anticancer properties and cut from line 40.

3. Write full form of TLC in line 47.

4. In line 60 replace line with “The present study may provides the landmark for further exploration of M. macrophylla for its potent anticancer constituents “.

5. In introduction improve the lines (line 98 to 104) of aim of your study like change them “In this study an attempt was made to evaluate In vitro cytotoxic activity of 30 ethanolic extract of (ethno-pharmacological important) plants against cancer lines along with that compound were isolated from these plants which may be contribute to drug development against cancer.

6. In method portion proper spacing should be made like in line 127 between 10 mg/ml, line 138 between 490 nm, line 144 between 35 mm.

7. In result section remove word initially in line no. 202. Replace the word intention in line no. 205 with aim. In line no. 218 replace the word overall with “In nutshell our study results implicated “rest of line must be same as written in line 219.

Response to comments 1 to 7: We thank the reviewer for pointing out the deficits. The opinion of the reviewer is accepted and all the alterations including the title have been included in the revised MS.

8. The discussion of this MS is poorly written. Like in line no. 222 authors should explained a little bit more about the study like “the types of plants taken and the type of cancer cell lines”.

Response: As suggested, line 222 has been elaborated.

In line no. 239 the authors use the word candidate what is meaning of candidate”.

Response: The word candidate was used to mean the promising plant extracts that were obtained. In the revised MS, the word candidate has been replaced.

In line no. 265 put the word “out of the 30 plants”.
Response: Change has been made.

In discussion portion authors should explained first their studies and then compared with other studies. More explanation must be provided about the phytochemical constituent of the plants in their study and their possible role in cytotoxic against cancer cell lines.

Response: Agreeing to the valuable input rendered by the reviewer, the discussion has been thoroughly re-written in the revised MS. The phytochemicals and their roles have been detailed in the revised MS.

9. Authors should put the figure of M. macrophylla leaf extract activity against Hep G2.

Response: As suggested, the figure has been incorporated as Additional file1 in the revised MS. Since it did not meet our criteria of exerting > 50 % inhibition, it was not included in the main MS.

Overall response: The revised MS has vastly benefited from the comments of the reviewers. It was a learning experience for me and my co-authors.

I look forward to hearing a positive rejoinder from you soon.

With sincere regards,
Runu Ghosh
Corresponding author