Author’s response to reviews

Title: Some Strychnos spinosa (Loganiaceae) leaf extracts and fractions have good antimicrobial activities and low cytotoxicities

Authors:

   Adamu I. Isa (adamuisaimam@gmail.com)
   Maurice D. Awouafack (amauduc2@yahoo.com)
   Jean Paul Dzoyem (jpdzoyem@yahoo.fr)
   Mohammed Aliyu (dr.aliyum@yahoo.com)
   Rabiu A. Magaji (rabiumagaji@yahoo.co.uk)
   Joseph Ayo (ayojo94@yahoo.com)
   Jacobus N. Eloff (kobus.eloff@up.ac.za)

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Author’s response to reviews: see over
ANSWERS TO REVIEWERS’ COMMENTS

Reviewer's report 1
Reviewer: Jean de Dieu TAMOKOU
1. Line 107: Extraction and liquid-liquid fractionation section. Can the authors explain how the leaves were dried and powdered?
Answer: Although drying and grinding process were described in plant material section. More explanation was provided.
2. Line 191: ABTS assay. ‘‘2,2'-azino-bis (3-ethylbenzothiazoline-6-sulphonic acid) diammonium salt (ABTS)’’ instead of ‘‘2,2-azino-bis (3-ethylbenzothiazoline-6-sulphonic acid) diammonium salt (ABTS)’’
Answer: correction has been made
3. Line 205: Cytotoxicity assay. Please revise this section to summarize it.
Answer: The section has been summarized.
4. Lines 269-270: The sentence- ‘‘This confirms results found ….’’ does not read well. What is the correlation with your work?
Answer: The sentence was an illustration. Now correction has been made and the sentence is now properly.
5. Lines 288-290: Antimicrobial results. The MeOH extract from the stem bark of S. spinosa was previously investigated and had no antimicrobial activity against C. albicans, S. aureus, B. cereus and E. coli [9]. How can you explain this according to your results?
Answer: Explanation was provided
6. In the introduction section (lines 91-93), the authors list a series of classes of phytochemicals which were previously isolated from Strychnos spinosa. Could any of these also explain the present antimicrobial activities?
Answer: Probably, but we were afraid of a statement about the fact that the activity observed could be due to the presence of phytochemicals, because we didn’t perform any phytochemical analysis.
7. Line 295: Antioxidant activities. The antioxidant activities of Strychnos spinosa leaves were compared with those of the positive controls. However, to demonstrate its potential applications as drug source, activity of S. spinosa needs to be compared with other plants (if any) which were reported having antioxidant activity.
Answer: Thanks for the remark. Comparison was made with the antioxidant activity of S. spinosa fruit.
8. Lines 300-303: The sentence- ‘‘The highest antioxidant activity mentioned above for some tested…’’ should be deleted since the authors did not perform phytochemical analysis of the studied plant.
Answer: The sentence has been deleted.
9. Lines 277-281: ‘‘All the fractions had fungistatic effect against C. neoformans while most of the extracts were bactericidal based on the difference in MIC after different time of incubation. Some bacteriostatic effects were observed for acetone and alkaloid extracts against E. coli, and some fractions such as n-butanol against S. aureus, hexane against B. cereus and E. coli, chloroform against E. coli, and ethyl acetate against B. cereus, E. faecalis and E. coli.’’ Please provide references to these sentences or methods used to determine the cidal effect of your samples.
Answer: Thanks for this observation. Cidal activity was simply followed up by the reading at different interval times as displayed in table 2.

10. Lines 329-331: The authors should be more elaborate about the traditional usage of the plant. They refer to the traditional use of *Strychnos spinosa* for venereal diseases, leprosy and diarrhea. This information should be explained in terms of their present findings.

Answer: The statement is in reference to our study since some of the microbial strains used are responsible of venereal diseases and diarrhea.

11. Lines 348- 423: In the reference section, the authors should check the Reference formatting style of the journal and follow it accordingly.

Answer: correction has been made

12. Pages 19-22. I find the table legends lacking in detailed descriptions. All of them should better describe what the reader is looking at and include sample sizes for replicates, how many independent times analyzed, etc. Similarly, the authors should explain how they compared activities of their samples since statistical analysis is not included in the manuscript.

Answer: Statistical analysis was included and results discussed accordingly

13. Please ensure that your tables are correctly formatted in accordance with our formatting guidelines([http://www.biomedcentral.com/bmccomplementalternmed/authors/instructions/researcharticle#preparing-figures](http://www.biomedcentral.com/bmccomplementalternmed/authors/instructions/researcharticle#preparing-figures)). Specifically, Tables should also have a title (above the table) that summarizes the whole table; it should be no longer than 15 words. Detailed legends may then follow, but they should be concise.

Answer: Tables’ formatting guidelines have been followed and the titles were corrected and reduced to less than 15 words.

14. What is the significance of the average values? There is no reference in the text to these values, otherwise there is no point presenting them.

Answer: Average values have been removed.

15. There are some grammatical and typographical errors that should be corrected throughout the manuscript.

Answer: The whole MS has been cross-checked, grammatical and typographical errors were all corrected.

**Reviewer's report 2**

**Reviewer:** Gary Dykes

1. Lines 1 and 56: The use of the word “excellent” in the title and other parts of the text is not appropriate. This is a subjective term. It should be deleted from the title. In the text (abstract) it can be replaced with more moderate or objective term.

Answer: The word “excellent” was replace by “good”

2. Lines 105-106: Further details about the preparation of the leaves is required. How long were the leaves dried for? On/in what? What was the temperature (or temperature range)? Was the shade partial or complete? Were they protected from contamination? How were they ground? How is “fine” defined? How were they stored in the dark? In what container? At what temperature? For how long?

Answer: Details were provided for the preparation of leaves.
3. Line 138: *Bacillus cereus* is a Gram positive species. This should be corrected here and elsewhere in the text where it is suggested that more than one Gram negative species has been examined.

**Answer:** correction has been made.

4. Lines 139-140: The authors should differentiate between the yeast and moulds instead of just calling everything fungi. This has been shown to be a relevant differentiator of activity in other studies.

**Answer:** appropriated words were included.

5. The authors have examined a very limited range of bacteria, yeasts and moulds. It is well established in the literature that different bacterial and fungal species, but more importantly different strains within those species, may be more or less sensitive to antimicrobials. The author should discuss this issue as a limitation of their study and point out that a much larger number of strains from each species need to be tested for sensitivity before any major conclusion can be drawn.

**Answer:** Thanks for this point. Our study included Gram positive and Gram negative bacteria as well as yeast and filamentous fungi, which if representative in term of microorganism groups. Therefore, it sounded more suitable for us to focus on the isolation of the active principle instead of extending the spectrum of the tested microorganism. This is ongoing in our research group at the moment.