Author's response to reviews

Title: Antibacterial Activities of Selected Edible Plants Extracts Against Multidrug-Resistant Gram-negative bacteria

Authors:

Doriane E. Djeussi (princessedoriane@yahoo.fr)
Jaurès A.K. Noumedem (jauresnoume@yahoo.fr)
Jackson A. Seukep (seukep@yahoo.fr)
Aimé G. Fankam (agfankam@yahoo.fr)
Igor K. Voukeng (tefogang@yahoo.fr)
Simplice B. Tankeo (presidentankeo@yahoo.fr)
Antoine H. L. Nkuete (hantoineit@yahoo.fr)
Victor Kuete (kuetevictor@yahoo.fr)

Version: 2 Date: 18 May 2013

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Detailed responses to reviewer's comments

MS: 8513394749514014
Antibacterial Activities of Selected Edible Plants Extracts Against Multidrug-Resistant Gram-negative bacteria

Dear editor, thanks so much for sending the comments of the editor for this manuscript. We have carefully taken it into consideration in preparing our revision, which has hopefully resulted in an improved, clear and more compelling paper. All changes in the text were marked with red. We hope you will appreciate it.

Editorial comments:

- Please confirm that voucher specimens of the plants used in your study have been deposited in a publicly available herbarium, and include this information in the methods section of your manuscript.

Answer: this has been done

- We recommend that you copyedit the paper to improve the style of written English. If this is not possible, you may need to use a professional language editing service. For authors who wish to have the language in their manuscript edited by a native-English speaker with scientific expertise, BioMed Central recommends Edanz (www.edanzediting.com/bmc1). BioMed Central has negotiated a 10% discount to the fee charged to BioMed Central authors by Edanz. Use of an editing service is neither a requirement nor a guarantee of acceptance for publication. For more information, see our FAQ on language
Reviewer#1
Reviewer: Mainen Moshi
Reviewer's report:
Minor Essential Revisions
The manuscript is largely well written but there a few minor editorial mistakes that need to be corrected.
e.g. 1. In the abstract two latin binomials have been written with a fullstop in between (Aframomum.alboviolaceum)
Answer: this has been corrected
2. Again in the abstract "Ocimum gratissimum and Tamarindus indica" are all connected as one word.
Answer: this has been corrected
3. There are a few more such minor editorial mistakes, which the authors can be trusted to quickly correct.
Answer: We went throughout the manuscript to correct typological errors
4. The last sentence under Discussion section is not clear. It needs to be revisited so as to make clear the message that is being conveyed.
Answer: this has been corrected
5. I wonder if the conclusion could be linked to the point of view that these plants are used as food. What are the implications in terms of controlling MDR bacteria encountered in foods?
Answer: this has been re-written
4. Reference No. 7 is incomplete:
5. Reference No.25: The name of the author is "Doughari JH"
Answer: this has been corrected
Level of interest: An article of outstanding merit and interest in its field
Quality of written English: Acceptable
Statistical review: No, the manuscript does not need to be seen by a statistician.
Reviewer#2

Comments to Djeussi et al.
1. Is the question posed by the authors well defined?
Yes. But you need to explain why you chose these particular plants.
Answer: this has been done

2. Are the methods appropriate and well described?
• No. plant materials and extraction: need more detailed explanation that would allow another
person to repeat the same experiment.
Answer: this has been done

• Preliminary phytochemical screening: What do you mean by “standard methods”? The method
that is described in reference 10 is not a globally accepted standard method.
Answer: this has been re-written

• Bacterial susceptibility determinations: how do you know that 2.5% DMSO did not affect the
microbial growth? Did you run a control test (2.5% DMSO vs. 0% DMSO against all the bacterial
strains) and confirm this? If so, you must include this in your manuscript.
Answer: For each assay, internal control with DMSO 2.5% was systematically added. this is included in the manuscript

• Define the meaning of MBC/MIC ratio (bacteriostatic vs. cidal). Explain the reason why you used
PABN.
• Also, why did you concentrate on the efflux pump? There are so many other mechanisms of
antibacterial resistance like beta-lactamase and yet, you only focused on the efflux pump.
Answer: MBC/MIC ratio has been defined. PAßN, is a potent inhibitor used to confirm that strain used expressed active efflux pumps. Efflux pump is responsible of resistance to many classes of antibiotics contrary to the production of beta-lactamase.

• You must define what MDR stands for.
Answer: done

• Not all the bacterial strains that you tested are MDR and therefore, you need to
revise the last sentence of the Background section “…against MDR Gram-negative bacteria” because some are wild-type strains, i.e. not antibiotic resistant.

Answer: done

• Statistics: did you take an average of the three independent tests or did you take the most frequently observed MIC, MBC values? Explain.
Answer: we took the most frequently occurring values in case there were different. this has been added in the Ms.

• For all the materials and reagents, state the manufacturer and its location. Answer: done

3. Are the data sound?
• No. You must include the MIC and MBC values of bacterial strains against chloramphenicol with and without PABN, and add the results to Table 3.
Answer: these values were present in Table 3, second part of the table

• Table S1: Enterobacter strains do not have information on antibiotic resistance determinants. Are they wild-type or resistant to certain antibiotics? Answer: These are Laboratory collections not yet completely characterized. However, we added the known information

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
• No, see above. For example, MBC/MIC ratio must be defined. The authors must discuss the significance of MBC/MIC ratios on each extract in the Discussion section. Answer: done

5. Are the discussion and conclusions well balanced and adequately supported by the data?
• You need to discuss more in detail antibacterial activities of each chemical constituent against each bacterial strain (E. coli, enterobacter, pseudomonas) rather than generalizing them as “antibacterial activities”. For example, you saw difference in MIC of A. digitata
among different strains of E. coli. Why do you think that anti-E. coli activity of A. digitata is compromised by the presence of over-expression of TetR gene? Explain this. Explain similar observations of other plant extracts.

Answer: As the Phytochemical test is still a preliminary step that does not bring details information on the chemical constituents of the plants, we cannot not deeply discuss data in regards to the chemical consituents of each plants

• The Conclusion section can be transformed into a concluding paragraph at the end of the Discussion section.

Answer: As per journal style, there must be a conclusion section

6. Are limitations of the work clearly stated?
• No. You must state limitations of your work.

Answer: done

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
• Yes, but your review of the literature is ill-organized. First, provide a brief literature review and then state your findings, whether they are novel or confirmatory.

Answer: done

8. Do the title and abstract accurately convey what has been found?
• Title: No, you must explain why you chose these extracts. You must state antibacterial activities of extracts, not crude plant materials.

Answer: done

• Abstract: No. What do you mean by “standard methods”? The method that is described in reference 10 is not a globally accepted standard method. You need to define what multidrug resistance is in your manuscript. Resistant to more than one drug, two drugs, etc. Your phrase “significantly active” is not accurate. You did not perform a statistical test such as t-test to define
significance.

Answer: done

9. Is the writing acceptable?
   • No, the manuscript must be proofread by a native English speaker.
   • Typographical mistakes must be thoroughly corrected.
   • You must show abbreviations in parentheses when they appear for the first time in the abstract and manuscript, and use the abbreviations when they appear subsequently.

Answer: done