Author's response to reviews

**Title:** Effects of Antrodia camphorata Extracts on Anti-Oxidation, Anti-Mutagenesis and Protection of DNA against Hydroxyl Radical Damage

**Authors:**

Yu-Lin Hsieh (Jim09771@hotmail.com)
Szu-pei Wu (szupeiwu@mail.ypu.edu.tw)
Li-Wen Fang (fanglw@isu.edu.tw)
Tzann-Shun Hwang (hzx@faculty.pccu.edu.tw)

**Version:** 3
**Date:** 7 June 2015

**Author's response to reviews:** see over
Dear Editor:

We thank the reviewers for their valuable remarks and useful comments. We tried to respond to each comment, and to do the required changes in the manuscript. We think now the expression of the manuscript is carved to be better, and the credit goes to them.

**Responses to Reviewers’ Comments**

**Reviewer: M.S. Kanthimathi**

1. **Comment:** Correct the spacing, line 73.

    **Response:** Thank for your carefully reviewing, we have corrected the spacing. We also examined that throughout the manuscript.

2. **Comment:** Antioxidant does not need a hyphen (anti-oxidant, etc).

    **Response:** Thank you very much for pointing out this defect, we have corrected it.

3. **Comment:** The antimutagenic and DNA-protective studies, etc, are presumably for future use in humans. However they have used bacterial assays. Would it not be more meaningful to test the extract on human cells, given that the authors say that they are presenting evidence of its safety to be developed into health food.

    **Response:** Thank for your nice advice. This report is the first study addressed on the protective effects of *A. camphorata* against DNA damage. We would like to prove its function and safety step by step; therefore, the experiments were carried out initially by bacterial assays, because these assays are simple and well established. After getting these positive results, we have started to examine it by animal cells and then we will conduct the assays by human cells. Actually, the further experiments are still ongoing. *A. camphorata* has been used as traditional herb for a thousand years and been proven to have no
toxicity in animal in previous studies, so it should have no argument to develop into health food. However, the main question is how many healthy functions it does have. In this study, we chose the bacterial assays initially to assess its ability in DNA protection. When we got the positive answer, we moved on to the direction of using mammalian cells (from mice) for assays. In the final assessment of A. camphorata’s DNA-protection function and safety, human cell assays will and must be used and performed.

4. **Comment:** **Quality of written English:** Needs some language corrections before being published.

**Response:** The English-writing and grammar of our revised manuscript have corrected by native English speakers in the English-Editing Company (NOVA Editing Co., Taipei)
1. Comment: What was the parameter used for selection of ACE concentrations?

Response: The concentrations of *A. camphorata* extract (ACE) selected in this study was according to previous reports addressing the antioxidant activity of ACE (Mau et al., 2004 and Huang et al., 2007). It was found to have good antioxidant activity in mg level per ml. The difference between our preparation and theirs in those papers is to use distilled water instead of methanol for extraction at 4°C, since this preparation is considered to match the requirements on food safety. (methanol is a toxic solvent)

2. Comment: Rewrite the discussion. Include data on other scientific studies.

Response: Thank for your nice advice. We have checked previous related studies once again and rewritten the discussion of our manuscript to include those data from related studies.

3. Comment: Abstract: The background should be rewritten highlighting the main goal.

Response: Thank for your nice advice. We have rewritten the background in the Abstract to highlight our main goal in this study.

4. Comment: Methods (Antimutagenic test) : Describe the abbreviation 4-NQNO and B[a]P.

Response: Thank for your carefully reviewing, we have corrected it by adding the description of the abbreviation of 4-NQNO and B[a]P.

5. Comment: The table 2 should be removed.
Response: Thank you for pointing out this defect, we have corrected it.

6. Comment: Table 4: Include the mutagenicity ratio or mutagenicity index (between 0.9 to 1.09) and remove percentages relative.

Response: Thank you for pointing out this defect, we have corrected it and used mutagenicity index instead.

7. Comment: Quality of written English: Needs some language corrections before being published.

Response: The English-writing and grammar of our revised manuscript have corrected by native English speakers in the English-Editing Company (NOVA Editing Co., Taipei)