Reviewer's report

Title: Antagonistic effect of alkaloids and saponins on bioactivity in quinine tree (Rauvolfia caffra Sond.): Further evidence to support biotechnology in traditional medicinal plants

Version: 1 Date: 16 August 2013

Reviewer: SIMON KWAKU ATTAH

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General comments: This article is a valuable contribution to the field of ethnomedicine

DISCRETIONARY REVISIONS

Title: This should be framed as: “Antagonistic effect of alkaloids and saponins from the quinine tree (Rauvolfia caffra Sond.) on bioactivity: Further evidence to support biotechnology in traditional medicinal plants.”

MINOR ESSENTIAL REVISIONS

ABSTRACT:

Background:

Ln1 “Quinine tree” should read as “the quinine tree”. This should be corrected wherever this appears in the manuscript.

Methods:

Ln 1: DPPH should be written in full and the abbreviation placed within parenthesis.

Conclusion:

State clearly the conclusion of the study and what is stated in the abstract should correspond with what is stated under the discussion.

Key words: the semicolon (;) placed after the “Key words”, should be changed to a colon (:)

BACKGROUND:
Para. 1, Ln 5: the statement: “making many to turn to …..” should read as: “thereby making many to turn to ……..”
Para. 2, Ln 2: “……traditional prescription of crude extract is unsuitable for two reasons:” should read as follows: “……the traditional prescription of crude extracts is unsuitable for two reasons:”
Para. 2, Ln 9: the statement: “thus affecting the levels of abundance for the bioactive compounds” should read as: “thus affecting the levels of abundance for the bioactive compounds.”
Para. 3, Ln 4: the statement should read as follows: “Although genetic manipulation (GM) is a controversial subject, stronger objection concerning food crops, where GM activities…….. “

METHOD:
Sample collection, storage and treatment:
Para. 2, Ln 4: insert a comma after “finally” and insert a reference(s) at the end of the statement.

Thin layer chromatography assay:
Para. 1, Ln 2: the statement should read as follows: “This method was used to detect the presence of compounds in the crude extracts.”
Para. 1, Ln 5: the phrase: “…..and finally in a combination with 5% Methanol.” should read “…..and finally in a combination where Methanol is 5%.”

Fractionation of phytochemicals in stem bark crude extract:
Para. 1, Ln 11: The statement: “The phytochemicals probed were; flavonoids, coumarins, alkaloids, steroids, cardiac glycosides, saponins, terpenoids, tannins and phenols.” Should read as: “The phytochemicals probed were: flavonoids, coumarins, alkaloids, steroids, cardiac glycosides, saponins, terpenoids, tannins and phenols.”

RESULTS AND DISCUSSION:
Para. 1 Ln 4: “Presence of such phytochemicals…………” should read as: “The presence of such phytochemicals…………”
Para. 1, Ln 7: This statement should read: “We found R. caffra to be rich in antioxidants, and contain several known phytochemicals, two of which showed antagonistic effect.”
Sub-heading: “Quinine tree was a strong antioxidant” should read as: “Quinine tree as a rich antioxidant plant.”
Para. 1, Ln8: a comma (,) should be placed after (Indeed) in the statement as follows: “Indeed, it is likely that R. caffra antioxidant activity is stronger than quercetin,…………..”
The subheading: “Alkaloids and saponins showed antagonistic bioactivity” should read as: “Antagonistic bioactivity of alkaloids and saponins”

Para. 1, Ln 12 In the statement: “Saponins observed in this study are likely to be steroids, ……..” What makes the authors think so? Could you explain?

Sub-heading: “Modern biotechnology can optimize medicinal value of R. caffra” This should read as: “Modern biotechnology and the optimization of medicinal value of R. caffra.”

CONCLUSION:
Para. 1, Ln 3: the word: “extract” should read “extracts”

NB: The conclusion should be brief and straight to the point.

REFERENCES:
Ref. 3: 9(49): 8467-8471 should be read as:
9(49):8467-8471


NB: References should be numbered accordingly.

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