Reviewer's report

Title: Partial characterization, antioxidative properties and hypolipidemic effects of oilseed cake of Allanblackia floribunda and Jatropha curcas

Version: 1 Date: 5 August 2013

Reviewer: Abhay K. Pandey

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Authors of the manuscript have extracted phytoconstituents present in the seeds of Allanblackia floribunda and Jatropha curcas in many solvents and analysed their phenolic contents. In addition protein and dietary fiber contents were also analysed. It was observed that glutelin is major storage protein in J. curcas seeds. Several assays such as FRAP, DPPH, ABTS and chelating ability were performed for the assessment of antioxidant potential. As antioxidants, the phytochemicals present in these seeds may protect cell constituents against oxidative damage, therefore limiting the risk of various oxidative stress-related degenerative diseases. In vivo studies were also performed on the hypolipidemic parameters (triglyceride, total cholesterol and blood glucose). The outcome of the study provides biochemical bases for further researches in area of oxidative stress with respect to use of Allanblackia floribunda and Jatropha curcas seed phytoconstituents as medicinal agents.

Objectives of the study are well defined. All the sections from background to discussion are written properly. Methodology is appropriate. Results are suitably presented using figures and tables. Discussion needs to be strengthened by addition of few latest citations in the field. Minor corrections and some new additions are required in references. Authors have shown that alcoholic fractions having higher phenol contents accounted for higher radical scavenging and lipid lowering activities. This is an interesting observation worth publication. Title and abstract are compatible. Minor essential revisions in the manuscript are required for publication.

Minor Essential Revisions:

Page 3, Background, Para 2, line 4 & 5: The sentence “The crude ethanolic extract of the leaves has antimicrobial properties including Staphylococcus and Streptococcus sp. and E. coli [8]” Should be written as “The crude ethanolic extract of the leaves has shown antimicrobial properties against many bacteria including Staphylococcus spp., Streptococcus spp. and E. coli [8].”

Page 4, Para 1, line 3: “coughs” should be replaced with “cough”.

Page 5, Para 1, last line: Is the word “electrophoregrammes” correct? If not replace it with correct word.

Page 6, Para 1, Antioxidant properties: Authors must mention a brief account of the extraction process for preparation of solvent extracts. What was the
percentage recovery of dried extracts? Authors should also mention the solvent used for dissolving the extracts for assessment of antioxidant assays and final concentration of extract solution.

Page 5, Para 2, Total phenolic contents, last line: “made of ferulic acid” should be replaced with “prepared using ferulic acid”.

Page 7, Para 2, DPPH free radical scavenging assay, line 2: Incorporate volume of DPPH reagent added to the reaction mixture.

Page 7, Last line: The word ‘lipolipidemic’ in the heading “In vivo study of lipolipidemic effect of defatted products” needs to be replaced with ‘hypolipidemic’.

Page 8, Para 1: Was clearance from Institutional ethical committee taken for using rats during experiments? If so mention it under heading in vivo experiments.

Page 9, Para 2, line 3: Full form of the abbreviation ‘DM’ should be mentioned in the beginning and then subsequently followed by abbreviation.

Page 10, Para 2, line 5: Delete ‘In’ from the sentence ‘In On the contrary, the FRAP antioxidant...’

Pages 13, Discussion: The discussion related with antioxidant activities i.e., activity patterns in different assays as well as its relationship with polyphenols needs to be strengthened further in the light of recently published articles with their citation in the text. The authors must incorporate following recent citations in discussion section as well in references.


Page 16, Reference no. 11: Journal abbreviation (J Ethnophar) is not appropriate.

Page 17, Reference no. 20: Journal abbreviation (Meth Enzym) is not appropriate.

Page 18, Reference no. 26 & 29: Journal abbreviation (Biores Techn) is not appropriate.

Page 19, Table 1: Abbreviations DM and DS should be defined in foot notes below the table.

Page 19, Table 3: In table caption “(in brackets represent % of change) 1)” what do you mean by the 1). Abbreviations TC and TG should be defined in foot notes below the table.

Page 20, Table 4: In table caption “(in brackets represent % of change) 1)” what do you mean by the super script 1). Abbreviations TC and TG should be defined in foot notes below the table.

**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.