Reviewer's report

Title: Evaluation of antimicrobial, antimitagenic and radical scavenger activities of polar extracts from (Tunisian) Acacia salicina leaves

Version: 2 Date: 18 October 2011

Reviewer: Dario Kremer

Reviewer's report:

Comments and recommendation to MS: Hedi Ben Mansour, Jihed boubaker, Kamel Ghedira, Leila chekir Ghedira: Evaluation of antimicrobial, antimitagenic and radical scavenger activities of polar extracts from (Tunisian) Acacia salicina leaves.

General comments:
The article presents an evaluation of Acacia salicina leaves extracts for antimicrobial, antimitagenic and radical scavenger activities. In general, article is well done and it is worth to be published in BMC Complementary and Alternative Medicine. But, some things should be done to improve article quality before publishing.

Major Compulsary Revisions
2. Material and methods
2.5. In vitro antimicrobial activity
Page 6, line 9–10: authors said that 'A set of tubes containing only agar and microbial suspension served as the negative control.' Where are these results?

2.11. Statistical analyses
Page 10: Authors said that Duncan' test was used. Where are these results?

Conclusion is missing at the end of section Results and discussion. Please, make few sentences such as: 'In conclusions,...'

Minor Essential Revisions
Title:
Page 1: add 'Lindl.' after 'salicina'

Affiliations:
Page 1: change 'boubaker' into 'Boubaker'

Abstract:
Page 2: line 1: explain abbreviation 'TOF' like in other cases (in Abstract)
1. Introduction

Page 2: line 5: explain abbreviation 'NOPD' like in other cases (in Abstract)
Page 2: line 6: change type of brackets in '(a)' to be the same like in Material and methods
Page 2: line 12: explain abbreviation 'TEAC' like in other cases (in Abstract)

2. Material and methods

Page 2: line 5: explain abbreviation 'Lindl.' after 'salicina'
Page 2: line 6: change type of brackets in '(a)' to be the same like in Material and methods
Page 2: line 12: explain abbreviation 'TEAC' like in other cases (in Abstract)
Page 2: line 12: use always 'ABTS+' (instead sometimes 'ABTS+•'; see: 2.6. Radical-scavenging activity on ABTS+•) and always put '*' in bold (to be consistent in all text)

Page 3: paragraph 2, line 5: omit ', ' after '[5],'
Page 3: paragraph 2, line 8: change bold '.' in normal after [9].

Page 3: paragraph 2, line 14: Please, explain sentence 'Traditional medical uses of Acacia in north Tunisia are somewhat different.' It could help others investigations.

Page 4: paragraph 1, line 2: please, add space in 'Chaib(14)'
Page 5: paragraph 1, line 5: please, change 'gram' into 'Gram'
Page 6: paragraph 1, line 1: please, correct 'entretidis'
Page 6: paragraph 1, line 5: please, explain how the number of microbes were identify
Page 6: paragraph 1, line 5: please, change letter 'x' into symbol '#'

2.6. Radical-scavenging activity on ABTS+•

Page 7: paragraph 1, line 13: please, omit space before '2-carboxylic'

2.7. Superoxide anion Scavenging Activity

Page 8: paragraph 1, line 1: please, explain abbreviation 'X/XOD' in this section
Page 8: paragraph 2, line 5: please, add 'of' before 'EDTA' and explain abbreviation 'EDTA' in this section
Page 8: paragraph 2, line 6: please, add 'of' before 'XOD'
Page 8: paragraph 2, line 6: please, correct '37 #C'

2.9. Salmonella-microsome assay

Page 9: paragraph 1, line 6: please, correct '37C'

3. Results and discussion

3.1. Antimicrobial activity

Page 11, paragraph 1, line 2: Please, change ',' into '.' in '0,125'
Page 11, paragraph 2, line 4–5: Please, put ' S. aureus' in Italic
Page 11, paragraph 2, line 5: Please, change ',' into '.' in '0,225'
Page 12, paragraph 1, line 5: Please, change 'sp.' into 'spp.'

3.2. Antioxidant activities

Radical-Scavenging activity on ABTS.
Page 12, title: Please, omit '.' after 'ABTS'

Effects on superoxide anion generating system
Page 13, paragraph 1, line 5: Please, put 'Figure 1', for example after 'each extract'

3.3. Mutagenic and antimutagenic activities

Page 14, paragraph 1, line 4: Please, change ',' into '.' in '93,5%'
Page 14, paragraph 2, line 4: Please, add space in 'S. typhimuriumTA98'
Page 16, paragraph 1, line 1: Please, put 'S.' in Italic

Table 3:
Please, explain meaning of superscript 'a' an 'b'

References
Please, use short (Ref. no. 1) or long (Ref. no. 11, 12) hyphen between page numbers, not both. It should be uniform.

Ref. no. 2: Please, add spaces in 'J.Pak.Med. Assoc.'
Ref. no. 10: Please, change 'Australia' into 'Australian'
Ref. no. 12: Please, add space after '(12)'; put 'Phy' and 'Curr' in Italic; change 'Curr.' into Normal (not Bold)
Ref. no. 13: Please, add space after '(13)'
Ref. no. 15: Please, put 'Mutat' in Italic
3. Results and discussion

3.1. Antimicrobial activity

Page 10, line 1: Please, think to add 'leaves' after 'A. salicina'

Please, think to connect Table 1 and Table 2 into one table.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I have no competition of interest.