Author’s response to reviews

Title: In vitro antioxidant and antimalarial activities of leaves, pods and bark extracts of Acacia nilotica (L.) Del

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Dated 31-5-2017
Dear Editor,

Thank you very much for your valuable suggestions and encouraging remarks. We have revised the manuscript as suggested by the reviewers. Kindly find the response to reviewers’ comments below.

Reviewer #2

The authors followed some comments and I still have some comments as following

Comment 1: It was noted that polyphenols and flavonoids may be responsible for the protective effect. It would be useful to have the extract analyzed for specific composition (at least major components). In other words, how much polyphenols and flavonoids are found in the extract.

Response: Thank you for your suggestion. In our previous publication in the journal “Industrial Crops and Products, Volume 77, Pages 873-882 (2015)” we evaluated the chemical composition of A. nilotica extracts including total phenolic and flavonoid contents. These results are briefly incorporated in the revised manuscript, line 249-252.

“The bioactive potential of A. nilotica plant might be due to high total phenolic and flavonoid contents. As previously reported, total phenolic contents in leaves, pods and bark were 136.49 ± 2.49, 103.68 ± 1.46 and 62.03 ± 1.69 mg GAE/g of extract and total flavonoid contents were 37.53 ± 0.82, 29.03 ± 0.92 and 45.5 ± 2.99 mg QE/g, respectively [14]”.

Comment 2: Statistics should be done in the figure not only in the figure captions.

Response: Thank you for your suggestion. Figure 3 has been revised to include statistics (i.e. p-values). All other figures (lipid peroxidation and antimalarial activities) include a statistic analysis since observed data are plotted and visualized by a nonlinear regression, including the
95% confidence interval of the regression (i.e. dose vs. normalized response model with a variable slope).

Reviewer #3: no comments. The authors did a good revision. I only suggest to add the standard errors to the IC50-values in table 1 and 2.

Response: Thank you very much for your positive response. We agree fully that calculated parameter estimates should be presented with a measurement of uncertainty. IC50 and Hill-slope values were computed by fitting relative activity at different concentrations of plant extracts and controls, and presented as mean estimates (95% confidence interval). We believe that it is more intuitive for readers to interpret a confidence interval (range) rather than a standard error and would prefer to keep this presentation of data.

Kind regards.

Anil Kumar Anal