Reviewer's report

Title: Studies of the in vitro antitumor, antioxidant, antiobesity and antimicrobial activities of selected Thai medicinal plants

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Reviewer: Maria Leticia Miranda Fernandes Estevinho

Reviewer's report:

The article is not very original, but the results are interesting and the writing style is adequate, however, some concerns arise. The article must undergo major revisions.

The abstract is too large and must be summarized. The section “Background” must be improved, since it is incomplete. It would be very interesting to provide information about the use in ethnomedicine of the medicinal plants used (as they are many, refer the most important and justify the choice of the others). “Since a number of plants have been known to provide the basis of traditional medicine for a long time, a significant number of novel metabolites with potent pharmacological properties have recently been discovered from plants.” Add a reference to this sentence. Provide more complete information about the objective of the present study; refer the existence of previous studies. In the “Methods” section give more details about the taxonomic identification of the medicinal plants. Explain better the MTT cytotoxic assay. In the discussion, give more details about “This finding suggested that the extracts from these two species of the family Sonneratiaceae can possibly be further developed as the promising antimicrobial agents.”. Justify conveniently:“Unfortunately, the dried hexane and dichloromethane extracts could not be dissolved in the media for the tests, only the ethanol and the aqueous extracts were obtained for the tests” and “For the antioxidant activity, only the extracts from ethanol and aqueous from 6 investigated plants showed effective free radical scavenging activity”. “For the antiobesity activity, only ethanol and water extracts were used to study for the pancreatic lipase inhibition.” Why?!

In the conclusions, add a paragraph about the future application of this study. A global revision of the language, to correct the grammatical errors, must be performed. A statistical treatment must be applied to the results.

Level of interest: An article whose findings are important to those with closely related research interests

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

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