Reviewer's report

Title: Thai plants with high antioxidant levels, free radical scavenging activity, anti-tyrosinase and anti-collagenase activity

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Reviewer: Ephrem Engidawork

Reviewer's report:

* The work attempted to assess the antioxidant and enzyme inhibition activities of various plants and in an effort to predict their potential use in skin care. However, the work does not seem to sufficiently inform the reader how the measured parameters are inter-related with each other and why in some cases apparent inconsistencies are observed.

* Some statements are not clear for example, Page 9, Line 186-187: "This is double…"

* For some plants the said activities were reported and the part of the plant possessing the highest amount of phytochemical content was different that used in the present study (for example for A. squamosa roots and bark than leaf). The authors should explain why they selected the leaves than other parts of the plants.

* The authors used three solvents but it is not very clear why they chose these solvents. The best choice would have been dichloromethane, ethanol and water.

* What was the basis for doing correlation analysis of total phenolic and flavonoid content? Flavonoid content was not correlated but total phenolic content was correlated with antioxidant activity. What is the meaning of this finding?

* Is there any relationship between phytochemical content, antioxidant activity and enzyme inhibition activity? I raised this issue because ethanol extract of Ardisia elliptica Thunb., Annona squamosa L. and Senna alata (L.) Roxb. inhibited both tyrosinase and collagenase. However, Rhinacanthus nasutus, which has low phytochemical contents and antioxidant activity, surprisingly exhibited the highest tyrosinase inhibiting activity but no collagenase activity.

* The authors said that they used student t-test for analysis. But, I did not see anything about the analysis in the text.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
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Yes

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I am able to assess the statistics

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