**Reviewer's report**

**Title:** Defatting of acetone leaf extract of Acacia karroo (Hayne) enhances its hypoglycaemic potential

**Version:** 1  **Date:** 25 Sep 2017

**Reviewer:** Ephrem Engidawork

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- Page 17, Line 45: plants not "pants"

- Capitalize first letter in citing Tables.

* I am not happy with the explanation given for the seemingly antagonistic activity of the combination of insulin and the extract. It is evident that glucose uptake by the combination is significantly lower than the individual agents. However, this is not translated into the kinase activities. Akt1 expression is ablated by the extract and it is not surprising to see a decreased Akt1 with the combination. That does not, however, indicate that the extract wouldn't act via the Akt pathway, as it was capable of increasing other isoforms of Akt and it is known that there is redundancy of Akt in insulin signaling. One could also see that the combination produced a better effect in other measurements (for example, GSk-3β). Given that, why the combination produced such an effect on glucose uptake? Could it be because of some sort of interaction between insulin and the extract during the experiment?

**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?**
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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