Reviewer's report

Title: Antioxidant, alpha-glucosidase inhibitory activity and sub-chronic toxicity of Derris reticulata extract: its antidiabetic potential

Version: 2
Date: 20 November 2014
Reviewer: David Katerere

Reviewer's report:

General comments
Ln 65 – 66 – Re-phrase this sentence.
Ln 72 – Were standards used to validate the phytochemistry screening assays; if so, which ones?

In a previous paper by the same authors (J. Physiol. Biochem 2014) an oral toxicity study was performed, how does this differ from what is reported in this paper?

Ln 281 – Saponins and terpenoids are generally not associated with anti-oxidant activity

Discuss reported phytochemistry of D. reticulate e.g. Mahidol et al, Phytochemistry 45 (4), 1997, pp 825 – 829.

Pg 330 – 331. This is a controversial point “May cause fewer clinical events of hypoglycaemia” This cannot be an advantage because the whole treatment of diabetes is to induce normoglycemia by secreting insulin. It appears that D. reticulate has a different mode of action i.e. glucosidase inhibition which would be useful in management of Type 2 Diabetes.

347 Cytoprotective effect of D. reticulata. This is another controversial point. Alloxan induces Type I diabetes (which has a genetic basis and not due to chemical insult / oxidative stress), so is it scientifically valid to use a cytoprotective drug in the management of Type I diabetes? This should be discussed and supported by relevant literature

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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