Reviewer's report

Title: Inhibitory effect of Clitoria ternatea flower petal extract on fructose-induced protein glycation and oxidation-dependent damages to albumin in vitro

Version: 1 Date: 29 October 2014

Reviewer: Phillip Greenspan

Reviewer's report:

Major Compulsory Revisions

The authors report the antioxidant and antiglycative effects of Clitoria ternatea flower petal extract. Since the antioxidant properties of this flow petal extract has already been documented in the literature, the importance of the manuscript is the reporting on its effect on glycation. The authors compare this effect to that seen with aminoguanidine. The results demonstrate the petal extract inhibits glycation, but not to the extent of 1 mg/ml aminoguanidine and these effects have a temporal dependence. In further studies, fructosamine formation is only slightly inhibited by the extract and protein carbonyl formation is also only slightly inhibited by the extract. The loss of protein thiols during glycation is inhibited significantly by the extract. Therefore, a pattern of results are observed, however, the authors do not relate their findings to published findings of other phenolic extracts on these glycative reactions. The manuscript would be strengthened if the effects of clitoria ternatea flower petal extracts were compared to other extracts. At the present time, the reader can only add this flower petal extract to the long list of phenolic-rich extracts in inhibiting glycation.

Minor Essential Revisions

1. Line 280 should read "Figure 5"
2. Figure 1, the y-axis read nm X 10 (to the third). What does this mean?
3. There are several sentences in the manuscript that need to be rewritten to improve English usage. See line 30, 89-90. They are, for the most part, in need of minor changes.

Level of interest: An article of limited interest

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 I have no competing interests