Reviewer’s report

Title: In vitro metabolism studies of erythraline, the major spiroalkaloid from Erythrina verna

Version: 2 Date: 26 November 2013

Reviewer: horacio heinzen

Reviewer’s report:

The paper is consistent by itself. It is written in good english, the experiments and findings are well described. The supporting material is adequate and informative. The synthesis of the metabolite is an interesting and valuable procedure. Although the need of looking for possible toxic metabolites produced by gut microbiota, it seems particular to me to look to this point as first step when investigating erythraline pharmacokinetics. It sounds more convinient to look for the possible routes of elimination of the alkaloid, before facing such a complicated protocol. It would be worth to study it even in a smaller animal, like mouse or rat, simply investigating animal’s urine and feces. What about if erythraline is completly absorbed in the small intestine, glucoronidated and fully eliminated through the kidney and never reaches the gut? Perhaps a further experiment showing the routes of the alkaloid elimination could improve the scientific quality of this paper which I find very interesting, but rather incomplete at this level of knowledge of erythraline pharmacokinetics.

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' below.