Reviewer's report

Title: Antisickling and toxicological evaluation of the leaves of Scoparia dulcis Linn (Scrophulariaceae).

Version: 3 Date: 24 June 2015

Reviewer: Jun-Won Yun

Reviewer's report:

Major compulsory revisions.
1. Please add a detail description of extraction method. It may be important because the active components in the extract of S. dulcis depend on the extraction procedure.
2. Although the leaves of S. dulcis was confirmed the presence of several constituents by Abere et al. (Table 1), the information on chemical analysis of presumed or known effective ingredients(s) in the crude extracts and fractions is needed. In P11 L239-243, some more description and information will be required to explain what the "bioactive compounds" is in the extracts showing antisickling activity.
3. Taking into account the low bioavailability of this natural drug, pharmacokinetic confirmation is needed to better judge the negative findings of toxicity study.
4. For accurate information on repeat-dose toxicity, the analysis of hematological, serum biochemical parameters and organ weights are essentially needed according to the OECD guideline.
5. Materials and Methods: in repeat-dose toxicity study, the tissue list (liver, lung, heart, testis) for pathology is quite small. Are there any lesions in other important tissues, including kidney, spleen, testis and ovary?

Minor essential revisions.
6. Materials and Methods: a different rodent species (Swiss albino mice and Wistar rats) was used in this study. Why were different species used?
7. In Table 2, the Information on statistical significant difference among groups is not provided. This information is essential.

Level of interest: An article whose findings are important to those with closely related research interests

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.