Reviewer’s report

Title: Assessment of antiproliferative and antiplasmodial activities of five selected Apocynaceae species

Version: 1 Date: 5 November 2010

Reviewer: aurelien dumetre

Reviewer’s report:

Comments on the manuscript by Wong et al.
This study deals with the phytochemical characterization of some Apocynaceae plants and their potential antiproliferative and antiplasmodial activities. Results presented by Wong et al. aim to contribute to a better knowledge of plants used in traditional medicine, however results are quite preliminary since only raw extracts of the different plant species have been investigated for their biological activities. Moreover, this is not original since the antiplasmodial activity of Alstonia is already known.

Major Compulsory Revisions:
I think there is a major problem in interpreting EC50 or GI50 values on P. falciparum strains since there is no mention of the corresponding selective index for each plant and extract. Usually, cytotoxic activity on HepG2 is a reliable indicator to estimate the selective index of a compound because this cell line has the enzymatic equipment for compound biotransformation. I think this kind of results is required for further publication of these results elsewhere. Moreover, why only 2 plants tested on HepG2 and 5 on parasites?

Results present in table 1 have no sense. What is the rational for a negative and positive results based on GI50. Moreover, GI50 values are missing in this table!

Minor Essential Revisions:
check typesetting and English throughout the manuscript

Discretionary Revisions:
This manuscript is too preliminary to be published in BMC Complementary and Alternative Medicine and must be improved to be considered for publication elsewhere. I think HepG2 results and corresponding SI to antiplasmodial activity are required for further publication elsewhere.

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 that I have no competing interests