Reviewer’s report

Title: Norartocarpentin from a folk medicine Artocarpus communis plays a melanogenesis inhibitor without cytotoxicity and skin irritation in mice

Version: 2 Date: 15 May 2013

Reviewer: Antonella Canini

Reviewer’s report:

Dear Editor,

our decision about the MS “Norartocarpentin from a folk medicine Artocarpus communis plays a melanogenesis inhibitor without cytotoxicity and skin irritation in mice” by Horng-Huey Ko, Yi-Ting Tsai, Ming-Hong Yen, Chun-Ching Lin, Chan-Jung Liang, Tsung-Han Yang, Chiang-Wen Lee, Feng-Lin Yen is:

ACCEPTED after Major Compulsory Revisions.

1) In the text, authors sometimes wrote in vivo and in vitro not in italics. Sometimes they wrote the genus name Artocarpus and not its abbreviation A. They should modify it.

2) References should be checked (some mistakes are present for ex. in ref. 11 and 12).

3) The most important contradiction of the work is that authors describe the Norartocarpentin as whitening agent on B16F10 cells because of its action in the reduction of melanin amount, tyrosinase and MITF activity and levels. In reality, MITF, tyrosinase and melanin are melanoma cells differentiation markers and the decrease in their levels is considered a bad indicator of melanoma inhibition. A lot of work in literature (*) support this theory and demonstrate that an induction of differentiation in B16F10 cells is highly associated with the decrease of tumoral melanoma cells. Therefore, authors should justify and clarify the effect of Norartocarpentin on B16F10 cells: in fact, if this molecule could be a whitening compound, on the other hand, it might also have a pro-tumoral effect on cells. In fact, in the MTT assay, sometimes proliferation is enhanced with respect to the control.


* Moleephan W, Wittayalertpanya S, Ruangrungsi N and Limpanasithikul W:

4) MTT assay is a test able to determine a reduction in cell growth but it does not demonstrate the cytotoxic effect of a molecule on cells. Therefore, authors should perform a Trypan blue exclusion test to support their data.

5) Western blot analysis was also performed by authors but images are all very ugly!! For example: Figure 5, TYR spots are cut and GAPDH image is highly modified by authors, in fact it appears compressed!!! Authors should repeat these experiments or use original and complete images of their immunoblotting!

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