Reviewer's report

Title: Anti-inflammatory effect of ethanolic extract from Myagropsis myagroides on murine macrophages and mouse ear edema

Version: 2 Date: 1 July 2012

Reviewer: Edgars Liepins

Reviewer's report:

The authors studied the effects of M. myagroides extract on murine macrophages and mouse ear edema. Overall study is technically well done, however, some important points should be addressed.

Major points:

1. In Introduction authors make statement: “the effects of M. myagroides ethanolic extract (EMM) on RAW 264.7 murine macrophage-mediated inflammation still remain unknown.” In general, in publication by Heo SJ et al. these effects were already described: Heo SJ et al. Food Chem Toxicol. 2010 Aug-Sep;48(8-9):2045-51.
   Similarly effects of 6,6#-Bieckol, isolated from marine alga Ecklonia cava is already described by Yeong-In Yang et al, International Immunopharmacology. 12 (2012) 510–517.
   What is novelty of this study compared to previous publications? Authors should describe comparison in the Discussion section.

2. Authors demonstrated anti-inflammatory effect of M. myagroides ethanolic extract in PMA-induced mouse ear edema model of inflammation. What is rationale of M. myagroides ethanolic extract potential use in medicine, if anti-inflammatory effect of extract is significantly weaker compared to indometacin? If 6,6#-Bieckol is identified as active component, authors should test its effects on mouse ear edema model.

3. It is generally known that composition of active components of herbs significantly varies related to geographic regions and multiple ecological factors. Authors should provide more data regarding to plant identification and extract standardization. Otherwise this study could not be repeated by other laboratories. For example concentration of active component fucoxanthin was not detected and described.

4. In Conclusions authors state, that "EMM could be developed as a new therapeutic or nutraceutical agent for treating inflammatory diseases". However, extract tested only topically and could not be suggested as nutraceutical agent. This conclusion should be removed.

Level of interest: An article of limited interest
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