Reviewer's report

Title: The effect of melilotus extract on lung injury by upregulating the expression of cannabinoid CB2 receptors in septic rats

Version: 3 Date: 15 August 2013

Reviewer: Elif CADIRCI

Reviewer's report:

Major Compulsory Revisions

The introduction says that the study aimed to investigate impact of M. Suaveolens Ledeb on the lung injury. However they did not study directly the plant extract, they used a commercial product. Is the product standard? Do the authors know the ingredients and also did any botanists identified that commercial product's source. Namely I ask how authors can know the extract they used was M. Suaveolens Ledeb.

Another important point is, there are several compounds in a plant that can be effective. Extraction procedures are important in terms of obtaining different compounds from same plant. Is the extract they used standard??

The dose of extract “25 mg/kg q8h” is not clear.

The animal model is appropriate for sepsis experiments. All analyses for biochemical; histopathologic and molecular evaluation is also ok. However I could not understand how could the authors collected 5 ml blood sample from a mice. They can collect maximum 1-1.5 ml. Did they pool bloods of different animals?

Also another point is important: the survival of mice. Did all mice survived for 24 hours after clp application?? If not, present the survival data.

Overall the manuscript, especially discussion should be rewritten.

There are many typographical mistakes. Also language should be edited.

Minor Essential Revisions

In discussion the sentence "For example, the selective CB2 receptor—ANI241—can act on the CB2 receptors on the peripheral immune cells, inhibiting the release of inflammatory factors and play a role of analgesic " is not clear.

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

Quality of written English: Not suitable for publication unless extensively edited
**Statistical review:** No, the manuscript does not need to be seen by a statistician.