Reviewer's report

Title: Antidiarrhoeal activity of Matricaria chamomilla is mediated predominantly through K+-channel activation

Version: 2 Date: 20 October 2014

Reviewer: Vincenzo De Feo

Reviewer's report:

The manuscript entitled “Antidiarrhoeal activity of Matricaria chamomilla is mediated predominantly through K+-channel activation” authored by Malik Hassan Mehmood, Siraj Munir, Uzair Ali Khalid, Mudassir Asrar, Anwarul Hassan Gilani falls within the scope of the Journal. The study was nicely designed and conducted, the findings are potentially interesting. However, this reviewer has the following major and minor comments for the manuscript.

Major comments:
- Authors investigated whether oral administration of the crude extract of Matricaria chamomilla (Mc.Cr) at 150 mg/kg and 300 mg/kg to mice could show antidiarrhoeal and antisecretory activities against castor oil-induced diarrhoea and fluid accumulation. Simultaneously, the Authors have investigated in vitro the potential antispasmodic activity of Mc.Cr.

The in vitro findings are potentially interesting but are not adequately supported by in vivo evidences.

- Authors should test the effect of Mc.Cr at different dose in order to have a complete and representative dose responsive curve. In fact the effect of Mc.Cr at dose of 150 mg/kg seems to be not significant compare to 300 mg/kg. Moreover, Authors should even test in vivo the effect of a K+-channel antagonist prior the addition of Mc.Cr in order to provide a mechanism of action. Reviewer strongly recommend to perform these in vivo experiments.

Minor comments:
- The manuscript requires an English revision. There are significant typographical and grammatical errors in the text. (See Manuscript title, See Abstract, line 38-39, line 46-50, line 55-57; See Introduction, line 94-96; See Conclusion, line 313-316).

- Authors should insert adequate references after the second and third period of the Introduction section. Moreover, They should reframe in the Abstract and in the Introduction the objective of the study in order to facilitate reader’s comprehension.

- Authors should rewrite the manuscript title and related running title that seem to be not representative for their study.

- Authors should revised manuscript format (see line 326-335).
Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests