Reviewer's report

Title: Rhodiola crenulata Extract for Prevention of Acute Mountain Sickness: A Randomized, Double-Blind, Placebo-Controlled, Crossover Trial

Version: 1 Date: 9 July 2013

Reviewer: Pranawa Koirala

Reviewer's report:

This is a well written paper on an interesting topic of alternative medicines for high altitude. Although the use of Rhodiola species for as a phytotherapy is not new, the question of whether it is actually effective against altitude illness is relatively new to the research. The study is well structured and is on par with the publishing standards of Bio Med Central. I have the following suggestions for few major compulsory and minor essential revisions.

Major compulsory revision

1. The dropout rate is 23 in a total randomized population of 125 with 24% drop out in the Rhodiola arm (if calculated separately). However I acknowledge lack of full ability on my part to confidently say how it might affect the overall interpretation of the study.

2. The significant period effect has not been explained satisfactorily. In the discussion section, Page 15 it has been reasoned as being a “learning effect”. However incidences of high altitude illness are not very well correlated with the lack of experiences or physical fitness.

Minor essential revision

3. Page 4, background- It might be better to include the reason for using Rhodiola crenulata species for the research, although inter-species variations have been acknowledged and as more number of research have been done in Rhodiola rosea species than any other species.

4. Page 6, paragraph1 –In the exclusion criteria “changed their living condition and habits 3 months.” the exclusion criteria is not objectively specified. Similar changes could be made to the point following “had additional physical training or were scheduled to gain or lose weight”.

5. Page 16, paragraph2- For the higher incidence of AMS seen in the study, lack of the mountaineering experiences has been given as the reason. If there are studies correlating mountaineering experiences and AMS incidences, it probably would be worthwhile to mention them there.

Level of interest: An article of importance in its field

Quality of written English: Acceptable
Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I have no competing interests in relation to the review of this paper.