Reviewer's report

Title: Application of Deep Sea Water Inhibits the Development of Atopic Dermatitis-like Skin Lesions in Isolated NC/Nga

Version: 1 Date: 7 February 2012

Reviewer: Naoki Inagaki

Reviewer's report:

Authors examined the effects of deep sea water (DSW) on dinitrochlorobenzene (DNCB) -induced dermatitis in NC/Nga mice, and reported its suppressive effects. The results seem to be clear, but there are many problems in the manuscript.

[1] Description on the method for inducing dermatitis is difficult to understand. Period between initial sensitization and weekly challenge is not indicated in the method section.

“After six weeks,”(page 6, line 10 from bottom), “After four weeks,” (page 8, line 9 from bottom), “Six weeks after the application of pimecrolimus,” (page 8, line 7 from bottom), are confusing. They should be described critically.

Mice were treated with 2 and 10% concentrated DEW or 1% pimecrolimus ointment. However, their applied volumes (doses) are not indicated. Dermatitis was evaluated by a scoring system, but the scoring system is difficult to understand.

[2] Some discussion on the effective constituents and the mechanisms should be added.

[3] To prepare spleen cell suspension, a glass homogenizer was used (page 7). Correct?

[4] “Th cell development cytokines (IL-2, IL-4, IFN-g and TNF-a) in the serum” (page 7) appears. Is TNF-a a typical Th cytokine? In figure 6, results of IL-10 are indicated.

[5] “with the 10% CDSW-treated mice nearly recovering to the same level as the 1% pimecrolimus-treated mice” appears (page 9, figure 1B). It seems to be incorrect.

[6] Description on figure 3 (page 9) seems to be insufficient.


[8] There are so many incorrect or inappropriate descriptions in the manuscript. It has to be revised carefully, and is checked by a native speaker with immunological knowledge.
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: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.