Reviewer’s report

Title: Rate of and Factors Associated with breakfast among Inner Mongolia Medical Students in China

Version: 1 Date: 3 December 2012

Reviewer: Tetsuo Harada

Reviewer’s report:

This paper deals with the epidemiological study with several thousands of participants on the relationship between breakfast consuming or skipping and several features (sleep quality, academic study performance and so on) in Mongolia Medical School students. The following conclusions are being shown.

“The rate of having breakfast is significantly lower compared to the recently reported rate of having breakfast among medical students in western countries and reports in other areas of China. Improvement of breakfast education should be considered for students in which higher monthly expenses, poor sleeping quality, or a laborious learning process have been identified.”

I would think that this paper is suitable for the publication because the skipping of breakfast promotes the negative spiral to reduce the QOL of the medical students living in the 24hrs-commercialization society (midnight TV, mobile phone communication, internet, midnight game place and midnight bars and so on) in the global meaning. However, the following revision of this MS is important for the publication. However, number 1 is crucial but number 2 is another issue if authors have got the data on the contents of breakfast.

1. The view point of the important metabolism pathway under the above “negative spiral” phenomenon is lacking in the first version of the MS. This pathway is as follows. The “tryptophan” taken at breakfast can be metabolized to serotonin in the morning which was again metabolized to melatonin at night, both metabolisms could be performed at pineal.

Serotonin is natural anti-depressant agent and melatonin is natural sleep-onset agent. The serotonin is melatonin could be functioning surely for the academic performance in daytime and sleep quality, respectively of the medical students. Therefore, a new paragraph on the hormonal mechanism should be incorporated in the revised version. The attachment was the two PDF of references related to this hormonal mechanism. Authors can cite these two papers.

2. Related to this hormonal mechanism, the data on the contents of the breakfast could be analyzed in this epidemiological study, if the authors have got these data.