Reviewer's report

**Title:** Metabolic syndrome in mid-life women is associated with low physical activity and low cardiorespiratory fitness

**Version:** 1  **Date:** 7 February 2013

**Reviewer:** Mitsuru Higuchi

**Reviewer's report:**

The authors investigated the cross-sectional relative and combined associations of PA and CRF with the risk of MS in a population-based sample of Hong Kong Chinese midlife women. They concluded that both PA and CRF were associated with the prevalence of MS but the latter appeared to be a better indicator with MS.

This manuscript is potentially interesting, however, there are a number of issues that should be addressed and clarified in order to increase the significance of the work.

My main concern is that the assessment of PA is self-reported. The behavior of physical activity is difficult to measure, and self-reported PA is subject to recall bias and misclassification. On the other hand, CRF can be measured objectively, using laboratory techniques. This may explain the relatively weaker associations found between MS and PA than with CRF.

In title # The study findings are only in part original. Some of the results (ref. 10, 11, 13, 20) had been already reported in previous studies. The authors should specify that your population is Chinese, and that CRF is associated with MS better than (or independent of) PA. These points are main strength of this study.

In abstract # typing errors. line21 CRP

In table 1, column heads # w/o MS, w/MS The authors should explain these abbreviations.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.