Reviewer's report

**Title:** Serum calcium and risk of gastrointestinal cancer in the Swedish AMORIS study

**Version:** 1  **Date:** 4 March 2013

**Reviewer:** Taiki Yamaji

**Reviewer's report:**

The authors conducted a huge prospective cohort study to investigate the association between serum calcium and risk of gastrointestinal cancer, and found that higher levels of serum calcium were related to an increased risk of esophageal and colorectal cancer, particularly in women.

The manuscript is generally well written, and the study design and method appear to be sound, but this reviewer has a few comments to improve the manuscript.

- **Major Compulsory Revisions**
  1) As the authors have acknowledged in the Discussion section, serum levels of calcium are not closely related to intake levels. Therefore, this reviewer strongly recommends the authors not to mention evidence from serum calcium and that from dietary and supplementary calcium in the same context. Please reconsider the Introduction and Discussion sections.

- **Minor Essential Revisions**
  1) Methods: For serum calcium and albumin, not only intra- but also inter-coefficient of variation should be presented.

- **Discretionary Revisions**
  1) Tables 2 to 4 are not intuitive. If the authors think that ionized calcium is more relevant, continuous analysis should be based on albumin-corrected calcium. In addition, the results according to quartiles of uncorrected calcium seem redundant. Therefore, they may be deleted or arranged in the supplement.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**
I declare that I have no competing interests.