Reviewer’s report

Title: Chronologically Matched Toenail-Hg to Hair-Hg Ratio: Temporal Analysis within the Japanese Community (U.S.)

Version: 1 Date: 30 July 2012

Reviewer: Melissa Slotnick

Reviewer’s report:

This is an interesting manuscript which makes important scientific contributions. The methods are well thought out, and it is clearly written.

Minor Essential Revisions
- In the background, I would suggest cutting the first paragraph and replacing with a statement about the need for improved exposure assessments and the importance of biomarkers in assisting this. The background should also include discussion of the previous studies compiled in the table and highlight how this study fills a gap in the literature.

- I am primarily concerned by the inconsistent use of MeHg and Hg (total Hg?), and the lack of discussion of Hg species/metabolism. This needs to be clarified in the article and the metabolism of Hg/Hg incorporation into the nail should be discussed (e.g., is it MeHg the primary form incorporated into the nail?). Furthermore, exactly what is being measured (total Hg) should be clearly stated. Is this the same for both toenails and hair? Is the form or Hg incorporated the same way in both materials?

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.

Declaration of competing interests:

I declare that I have no competing interests