Reviewer’s report

Title: Inverse Association of Colorectal Cancer to Serum Levels of Perfluorooctanoate (PFOA) and Perfluorooctane Sulfonate (PFOS) in a Large Appalachian Population

Version: 1 Date: 12 November 2012

Reviewer: Yana Vinogradova

Reviewer’s report:

Innes et al investigated associations between serum levels of PFOA and PFOS and the prevalence of colorectal cancer (CRC) in an Appalachian population. Blood tests were collected between August 2005 and August 2006. The paper is well written, covering all the aspects of the research. Most of the comments below are about the structure with some requests for additional information in Tables to assess the validity of the findings.

Title: it should be made clear that the association relates to the prevalence colorectal cancer.

Abstract: The years of the study period should be reported.

Material and Methods:

The second paragraph describes the sample rather than materials and methods, so should appear in Results. In this section a reader would expect to see only inclusion and exclusion criteria.

Page 6, paragraph 2: strata for BMI and years since diagnosis should be given, for example, below or above 30kg/cm2 for BMI.

All sensitivity analyses and reasons for them should be described in Methods and reported in Results.

Tables 2, 3 and 4 should include the number of cases and controls for each category.

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

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.