Reviewer’s report

Title: Associations of Perfluoroalkyl Substances with Blood Lipids and Apolipoproteins in Lipoprotein Subspecies: the POUNDS-Lost Study

Version: 0 Date: 23 Jul 2019

Reviewer: Sarah Dee Geiger

Reviewer's report:

- Missing some important articles in the references and text: Nelson; Shankar; Geiger; and possibly others.
- Please say how you determined which potential confounders to include in the models.
- Table 1: even though the sample is mostly white, can you further break out race categories?
- Table 1: showing weight in pounds would be more intuitive for many readers (could even do so in addition to kg)
- Please comment on the correlation among PFASs and also on the outcome side. What issues, if any, could this present, and how have you dealt with it (if at all)?
- Why did you choose to focus on LS Means?
- In the methods you stated that those on lipid-lowering medication were excluded, but in Table 2 the variable is shown in the covariate list
- It would be helpful if you would annotate Table 2 more overall. Define what follows the +/- ,indicate significance in some way, etc. so it's easier for the reader to identify key findings. Also somewhere indicate the range or mean value of each tertile as appropriate.
- The setup of table 2 is counterintuitive (to me, perhaps not to others). I recognize the challenge of presenting this type of results in an intuitive manner, but I would actually flip the column and row headings. When presented the current way, it seems as if the PFASs are the outcome.
- Very nice figures 1 and 2
- I would like to see a more thoughtful comparison of your findings with the existing literature in the discussion section.
- Very nice paper overall!

Level of interest

Please indicate how interesting you found the manuscript:

An article of importance in its field

Quality of written English

Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests

Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal