Reviewer's report

Title: Total Exposure Study Analysis Consortium: a cross-sectional study of tobacco exposures

Version: 2
Date: 16 June 2015

Reviewer: Gideon St. Helen

Reviewer's report:

I read the manuscript “Total Exposure Study Analysis Consortium: a cross-sectional study of tobacco exposures” with great interest. The objective of the study, which was to provide an objective analysis of the validity of this TES data by independent investigators at SRI and elsewhere, is laudable given the possible influence of the funding tobacco company. This is an extensive analysis with lots of tables. The analysis is sound and the conclusions made are justifiable. I have no major concerns about the analysis.

Minor Essential Revisions

I have a few minor comments:

1. Many of the comparisons were made between subjects with and without banked data. Unless I missed it in the text, what was the rationale for this analysis?

2. Page 5, line 81: The authors should be more specific with the name of the IRB. “An IRB” seems very generic.

3. Page 7, line 119: Please provide a working definition of “current cigarette smoker.” While this may be defined in previous publications, it should be defined in the current manuscript.

4. Page 8, line 143: The authors mentioned that the UCSF LTDL was accessed for information on the TES. This comes across as a routine step. However, searching the LTDL is not routine and usually implies assessing potential influence of the tobacco industry/company on TES design and original investigators, etc (at least in my mind, a skeptic of the original intent of the tobacco company that sponsored this study). The authors did not report on what they found in the LTDL.

5. Line 223 – ‘Disposition’ should be changed to ‘clearance’.

6. Lines 268-271 – This same sentence states that self-identified race differed significantly by smoking status and did not differ by smoking status. Which is it?

7. Line 301 – Although abbreviations are defined elsewhere, it will be helpful if Table 6 has definitions of abbreviations in notes at the end of the table and also identify what the parent compounds of the metabolites are.

8. Line 491 – What does “bona fide scientific researcher” mean? How is this judged?
Level of interest: An article of outstanding merit and interest 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