**Reviewer’s report**

**Title:** CYP1A1 methylation mediates the effect of smoking and occupational polycyclic aromatic hydrocarbons co-exposure on oxidative DNA damage among Chinese coke-oven workers

**Version:** 0  **Date:** 06 Jun 2019

**Reviewer:** Yunfeng Zou

**Reviewer's report:**

In this study, authors have discovered the co-exposure effect of smoking and 1-OHP were positively associated with CYP1A1 hypomethylation and high 8-OHdG. Authors also investigated a positive relationship between CYP1A1 hypomethylation and high 8-OHdG. The study found that the co-exposure effect of smoking and occupational PAH could increase the risk of oxidative DNA damage by a mechanism partly involving CYP1A1 hypomethylation. The overall study concept is well within the scope of Environmental Health, but there are typographic errors in the manuscript which needs to be addressed before publication.

Please check over again the article title of "CYP1A1 methylation mediates smoking and occupational polycyclic aromatic hydrocarbons co-exposure effect on oxidative DNA damage among Chinese cokeoven workers", there is no blank space among the words of smoking and occupational, please correct the mistake.

Please check over again the title of page 7, line 9 "Urine 8-OHdG measurement" there is no blank space among the words of Urine 8-OHdG measurement, please correct the mistake.

Please check over again the page 9, line 59 "there were no statistically differences in sex, education, occupation, and central heating. The font size of words of " central heating" is smaller than the other words.

Please check over again the title of "Table 2. The association between CYP1A1 hypomethylation and high 8-OHdG among 500 occupational workers"

The font size of words of "among 500 occupational workers" is smaller than the other words.

Please explain the grouping rationale of urine PAH metabolites according to 67th percentile, which is showed in Figure 1.

**Level of interest**

Please indicate how interesting you found the manuscript:

An article whose findings are important to those with closely related research interests
Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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