Reviewer's report

Title: Inflammatory and cytotoxic effects of acrolein, nicotine, acetylaldehyde and cigarette smoke extract on human nasal epithelial cells

Version: 2 Date: 19 November 2013

Reviewer: T-C Lee

Reviewer's report:

In the revised manuscript, the authors answered some questions raised by the reviewers. However, one major issue whether the experimental doses of acrolein, nicotine, and acetylaldehyde are relevant to those in CSE is not clearly answered. According to their estimation, the concentration of acrolein in CSE is 2 µM that is 15 to 25 folds lower than those used in this manuscript. The authors should discuss this point in their manuscript. In the last paragraph of Discussion, the authors mentioned that acrolein heightened IL-8 release but still caused loss of cell viability. Therefore, the values of IC50 are important references for the readers to understand the toxic ranges of chemicals studied.

Minor Essential Revisions

1. The legend of Figure 1 is unclear. There are 4 panels without clear description.
2. Since ELISA was used to determine the amount of IL-8 in the cultural medium, the data of Figure 2 should be presented by the concentrations of IL-8 instead of % Control. Then, the reader can know whether the treatment of tested chemicals to PNEC cells affects the basal levels of IL-8.

Level of interest: An article of limited interest

Quality of written English: Not suitable for publication unless extensively edited

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.