Reviewer’s report

Title: Influence of condensation temperature on selected exhaled breath parameters

Version: 1 Date: 16 June 2005

Reviewer: Stelios Loukides

Reviewer’s report:

General
This is a study on the effect of condensation temperature on parameters of exhaled breath condensate and levels of selected biomarkers in healthy subjects. The main limitation of this study is whether the observed changes in different cooling temperatures can be attributed to the temperature or express the absence of repeatability in these biomarkers within the four measurements. Additionally, the term "control subjects" is based on clinical history and not on subjective measurements like BHR and atopy status.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1. The main limitation of their methodology is whether the observed changes in different cooling temperatures can be attributed to the temperature or express the absence of repeatability in these biomarkers within the four measurements. I believe that trying to come to conclusions from their data without checking repeatability leads to weaker conclusions for the cooling temperature.
2. Subjects were characterized as controls using a brief clinical history and spirometry. No subjective measurements like BHR and atopy were used. These measurements might be useful for younger ages since they provide proven data for the term control. Authors need to clarify this limitation even in a separate paragraph in the discussion.
3. Did subjects wear a nose clip?
4. EBC collection in this study was performed with a transportable collector. Authors have to make clear if some subjects collected samples at home. If yes then they have to discuss if these measurements might affect their data.
5. Authors must clarify the period of storage. Which was the interval between measurements? Why did they not check stability? Analysis of hydrogen peroxide was performed within 2-3 days after EBC collection. Did the same happen with malondialdehyde?
6. I did not understand the significance of correlation data between biomarkers and conductivity. This issue must be further discussed by the authors.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions
**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**

'I declare that I have no competing interests'