Reviewer’s report

Title: Host and environmental predictors of exhaled breath temperature in the elderly

Version: 1 Date: 11 July 2013

Reviewer: Paolo Mascagni

Reviewer’s report:

This is a well-written manuscript. It deals with a non-invasive interesting diagnostic method for monitoring pathological processes in the respiratory system. The exposition is clear. The abstract states the purpose of the study, the methods used, and tells the results. The Background Section provides sufficient information about the previous studies. The statistical analysis is adequate. The results are of interest and clearly reported and discussed.

Specific comments follow.

Major Comments

No 1. Page 4, line 20. We gathered information on current and past use of medication from medical records of the general practice. Comment: Among medications, parameters involved for stepwise regression were statins, anti-hypertensive drugs. No other drugs are considered. An increasing number of medications is able to modify lung function or is implicated in drug-induced lung toxicity. Can you exclude the effects of these medications in the study group?

No 2. Page 2, line 17. Questionnaires were administered by means of a face-to-face interview to assess lifestyle, profession, education, past smoking status, as well as data on age, weight and gender. Comment: No information are provided about occupational status. A lot of toxic air pollutants have been implicated as a cause of lung inflammation. Did you select by profession?

Minor Comments

No 1. Table 1. Comment: About one half of the study population were taking statin drugs. New research shows that statins may protect against inflammation of the lung but “statin-induced lung injury (SILI)” is an uncommon but serious complication of statins. It might be appropriate to add in the Discussion Section a comment to the results of the statin regression analysis.

No 2. Abstract. Comment: The abstract should be a little more concise. It is over 250 words in length.

No 3. Page 8, line 15: To date, most studies on exhaled breath temperature to date
Level of interest: An article of importance 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