Reviewer's report

Title: Sputum and nasal lavage lung-specific biomarkers before and after smoking cessation.

Version: 2 Date: 29 December 2010

Reviewer: Paolo Montuschi

Reviewer's report:

This is a relevant and interesting study. I have only minor comments.

Page 3, line 21-22: I would suggest to replace “perhaps the most sensitive” with “a sensitive”.

Page 9, first sentence should be replaced with this sentence and relative reference: “Sputum induction has been proposed as a semi-invasive method that could give valuable information for lung injury, the Th1/Th2 response, the inflammatory process, and the effects of pharmacological treatment (Thorax 2005;60:827-833)".

Methods: it should be stated whether samples with < 20% or < 50% squamous cells were considered for analysis.

In the discussion, the authors should say that the techniques used in their study are suitable for sampling the nose and large airways, but not lower airways and the lungs. The results of this study should be interpreted accordingly.

In the discussion the authors should include this sentence with references: “Biomarkers of oxidative stress and airway inflammation including 8-isoprostane (Inflamm Res 2003;52:502-506) and leukotriene B4 (Inflamm Res 2003;52:69-73) have also been measured in exhaled breath condensate, a non-invasive method for sampling airway secretions (Ther Adv Resp Dis 2007;1:5-23), in healthy smokers and patients with COPD.

The discussion should be shortened and unnecessary speculation avoided.

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.