Reviewer’s report

Title: Expiratory flow rate, breath hold and anatomic dead space influence electronic nose ability to detect lung cancer

Version: 3  Date: 5 December 2014

Reviewer: Paolo Montuschi

Reviewer’s report:

Essential revision:

This study addressing two different breath sampling procedures should be cited: Chest 2010;137:790-6.

This comprehensive review article on electronic noses should be included: Respiration 2013; 85:72-84.

It should be mentioned that reproducibility of measurements and sensitivity of Cyranose 320 were specifically addressed in a previous studies (J Breath Res. 2013;7:017103; Sens Actuators B Chem 2012;173-555-61). These references should be included.

In background, it should be mentioned that several biomarkers of lung inflammation are potentially useful in healthy smokers and in smokers with respiratory disease (Curr Med Chem 2012;19:187-96).

In the discussion, it should be noted that electronic noses are part of a more general approach to molecular breath analysis including metabolomics of exhaled breath condensate by NMR spectroscopy. These references should be included: Thorax 2012;67:222-8; Eur Respir J 2012;39:498-500.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests