Author's response to reviews

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

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Version: 2 Date: 3 December 2010

Author's response to reviews: see over
Dear Editor,

Re: Manuscript **Sputum and nasal lavage lung-specific biomarkers before and after smoking cessation.**

We submit the above manuscript for consideration by BMC Pulmonary Medicine. The data provide new information about changes in sputum and nasal lavage lung-specific biomarkers Secretory Leukocyte Protease Inhibitor (SLPI), Clara Cell protein 16 (CC16), elafin and human defensin beta-2 (HBD-2) in “healthy” smokers after smoking cessation.

In our study induced sputum and nasal lavage was obtained from “healthy” smokers, recruited from our smoking cessation clinic. All subjects were free of any respiratory tract infections at the time or during the month preceding the study, did not suffer from any disease and did not receive any medication at the time of the first visit. None of them had symptoms of chronic bronchitis. Baseline lung functional tests were within normal range and chest radiograph was normal. In those who successfully quit smoking, induced sputum and nasal lavage was repeated after 6 months and after 1 year. Based on previous reports about reduced airway inflammation in ex-smokers compared to current smokers, we have conducted a longitudinal study to examine whether changes in SLPI, CC16, elafin and HBD-2 levels are reversed after a period of 6 months and 12 months of smoking cessation. To the best of our knowledge the present study is one of the first longitudinal studies that investigate into the effect of smoking cessation on these biomarkers in induced sputum and nasal lavage of smokers with no concurrent disease or lung function impairment. We showed that only nasal lavage SLPI decrease after 1 year after smoking cessation. We may speculate that there is an ongoing inflammatory process
stimulating the production of counter-regulating proteins in the airways of healthy ex-smokers.

All authors have read, approved and confirmed that the manuscript is not under simultaneous consideration. We thank you for considering this submission.

Yours sincerely,

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