Reviewer’s report

Title: Annual decline in forced expiratory volume and airway inflammatory cells and mediators in a general population-based sample

Version: 0 Date: 08 Jun 2018

Reviewer: Christine Freeman

Reviewer's report:

1. In the Introduction, page 4, line 22, the authors note that subjects who developed COPD had accelerated dFEV1. However, recent data suggests that COPD can also be the result of failure to achieve normal lung function followed by a normal rate of decline. This is discussed in a recent perspective piece (Martinez FJ, et al., At the Root: Defining and Halting Progression of Early Chronic Obstructive Pulmonary Disease. 2018 Am J Respir Crit Care Med PMID: 29406779). The authors might want to address some of this newer data in their introduction or discussion.

2. Did the authors look at the respiratory symptom questionnaires to determine whether sputum markers correlated with any symptom-related scores?

3. On page 7, line 20, the authors state that visible squamous epithelial cells (SQE) were excluded from the total cell counts. High numbers of SQE contamination could have an impact on the sputum sample. Did the authors use all samples, regardless of SQE numbers, or was there criteria established to determine if a sample should be rejected? If all samples were used, SQE numbers should be reported.

4. What criteria were used to determine current vs former smokers?

Are the methods appropriate and well described?  
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?  
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?  
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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