Reviewer’s report

Title: The effect of the novel phosphodiesterase-4 inhibitor MEM 1414 on the allergen induced responses in mild asthma

Version: 2 Date: 23 April 2014

Reviewer: Rakesh Kumar

Reviewer’s report:

This clinical trial yielded clear evidence that the PDE4 inhibitor MEM1414 was able to suppress the late phase response to allergen challenge in asthmatics.

Minor essential revisions

1. The trial involved patients described as steroid naive. The authors need to clarify whether they mean that these patients had never received inhaled steroids or whether what they actually mean is that they had never received oral steroids.

2. A limitation of the work that needs to be addressed in the discussion is that the anticipated effect on recruitment of inflammatory cells is based entirely on the effects of the drug on FEV1, because no assessment was undertaken of e.g. cells in BAL fluid. Therefore assertions about anti-inflammatory activity need to be qualified, because these are either speculative or based on the observed effects on TNF-alpha release from LPS-stimulated cells, which has little to do with allergic responses.

Discretionary revisions

1. The study is described as proof-of-concept, so certain limitations in terms of approach are acceptable. Nevertheless, in a setting in which the major allergen to which each patient responded was already known, it is somewhat disappointing that the response of LPS-stimulated whole blood cells was used as an indicator of activity of MEM1414, rather than the response of PBMC to stimulation with the relevant antigen. This is worth further discussion.

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

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.