Reviewer's report

Title: A new paradigm in respiratory hygiene: modulators of airway secretions to improve cough interaction.

Version: 3 Date: 8 June 2005

Reviewer: Terry Dwyer

Reviewer's report:

General
1. The central - and very important - point is well stated in the penultimate paragraph of the discussion, but hidden from view in the abstract. As I understand the terminology, the conclusion should be that increasing the cohesivity of the MS by increasing crosslinks improves cough clearance, generating a coarser aerosol, while having little effect of mucociliary transport. This should be made clearer in the Abstract, in particular because this may be the only sentence many readers ever look at! Similarly, the Results paragraph of the Abstract should be made clearer.
2. I continue to encourage the investigators to find a term that conveys more information than "mucomodulator", as this paper's mechanism is indeed different from that described by other terminology. The MS is not made drier, nor is it thicker in consistency. It is not more normal, or less normal; "mucostick" or "mucoglob" would never catch on. This is a difficult problem which should be solved in the near future.
3. In methods, spinnability is said to be an expression of elasticity; should not this be cohesivity? Or adhesivity? Or both?
4. Tenses of your verbs are still a problem, with present tense popping up in places where past tense is being used, such as the cough clearability assay; in addition, in page 6, the mucomodulators A and D "have been" reported, not "will be" reported.
5. In the first paragraph of the discussion, do you know that calcium increases crosslinks? Could it not simply reduce ionic repulsion between the mucins' negative charges?
6. In the second paragraph of the discussion, delete (or explain) the sentence "There still remains..."

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after discretionary revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable
Statistical review: No

Declaration of competing interests:
'I declare that I have no competing interests'