Reviewer’s report

Title: Neutrophil Necrosis and Airway Inflammation in Lung Transplant Recipients with Cystic Fibrosis

Version: 1 Date: 10 April 2012

Reviewer: Eamon McGreal

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This is a largely observational study concerning the expression of Annexin-I in neutrophils and macrophages from CF patients, CF patients following lung transplant and healthy controls. The authors show that annexin-I is degraded not only in obviously necrotic PMNs from the airway of post lung transplant CF patients, but also in the circulation. Further experiments are performed showing that this degradation proceeds as cells move beyond apoptosis to necrosis and also in response to PMA. On the basis of this, the authors suggest that ‘Annexin-I degradation to 33kDa A1-BP can be used as a sensitive marker to detect neutrophil oncosis’. The concept of a sensitive peripheral marker of airway inflammation is a useful and interesting one. However, whilst the experiments as performed and the evidence as presented in the manuscript can support this view, data are not presented from a sufficient number of subjects to be confident about this statement.

Major Compulsory Revisions:

1) There is no indication of how many patients have been enrolled into this study.
2) It has not been stated whether each presented figure represents a standalone experiment or is representative of a number of independent experiments.
3) There is no statistical analysis of the data.
4) Data presented in figure 2 suggest that those neutrophil lysates lacking annexin-I are also deficient in Actin. This suggests that a generalised degradation of cellular proteins may have occurred. Do the authors have evidence that other proteins are intact in these lysates? This would support the idea that Annexin-1 is a specific marker of airway inflammation.

Minor Essential Revisions:

5) Annotation in figure 5 should read ‘PMA’ not ‘PMN’.
6) ‘injure’ to ‘injur’ in background of Abstract.

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