Reviewer's report

Title: Transgenically-expressed secretoglobin 3A2 accelerates resolution of bleomycin-induced pulmonary fibrosis in mice

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Reviewer: Robert Guzy

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General overview:
In this manuscript, Cai and co-authors describe a transgenic mouse that overexpresses Scgb3a2 under control of the human Surfactant Protein C promoter. While this mouse has no observed phenotype under homeostatic conditions, the authors show that Scgb3a2-overexpressing mice have an altered response to intratracheal bleomycin. At three weeks post-bleomycin, transgenic mice have increased inflammation and fibrosis, while at 6 and 9 weeks post-bleomycin the transgenic mice have decreased fibrosis and collagen deposition compared to wild type controls. Lastly, the authors use microarray analysis of transgenic mice to suggest that Scgb3a2 overexpression may alter cellular homeostasis and regulation of inflammation, thus making mice potentially more susceptible to the early effect of bleomycin treatment.

Overall, the experiments are thorough with appropriate controls. This is an interesting report with potentially useful therapeutic implications for pulmonary fibrosis. A mouse model with inducible Scgb3a2 may be useful for future experiments, and future experiments are still needed to determine the mechanism involved. The authors have adequately responded to previous comments, and have made appropriate revisions to the manuscript. Specific comments and questions are stated below:

Major Compulsory Revisions
None

Minor Essential Revisions
1. For co-immunofluorescence figures (Figure 1G, Supplemental Fig S2-E), please indicate in the figure the antibodies used (i.e. SP-C, Scgb3a2) and color.

Discretionary Revisions
None

Level of interest: An article of importance in its field

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