Reviewer's report

Title: Maximization of oscillatory frequencies during arteriovenous extracorporeal lung assist: a large-animal model of respiratory distress

Version: 2 Date: 24 September 2008

Reviewer: Gil Allen

Reviewer's report:

I thank the authors for attending to most of my major points.
I would advise in the future that they try to answer to each point in narrative format rather than simply cutting and pasting revised sentences. This makes the response difficult to follow.

My only suggestions are as follows:

1.) Conclusions in Abstract still ends in speculation about higher frequencies and detracts from the main conclusion of the paper. If you want to speculate that higher frequencies might result in less shear stress, reserve it for the background. If the authors really feel a need to state this in the conclusion, identify this as speculation and put at front, then end with what they really found.

2.) In the background, page 1 on the revised statement on HFOV and VT, are the authors implying that lower osc freq results in higher VT because of longer insp times allowing for greater equillibraion between airway pressure and alveolar pressure and longer times to allow for stretch of the lung? If so, perhaps they should make this more clear.

3.) In the last para of the background, do the authors mean to say, "While significant reductions in min ventilation adn VT can be obtained during the combination of av-ECLA and [HFOV], optimal osc freqs remain to be determined."

4.) I like the modifications to Tables 1 and 2 and the discussion.

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

Quality of written English: Needs some language corrections before being published

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