

**ESI Figure S4: oLOX instillation into a ventilating *ex vivo* fibrotic asinine lung alongside FCFM.** Video of oLOX instillation into a ventilating *ex vivo* asinine lung model. Lungs were connected via a cuffed endotracheal tube to a positive pressure mechanical ventilator. A video endoscope was used to navigate to a pre-determined region of interest within the *ex vivo* lung. The endoscope was secured within a bronchus before the miniprobe (ProFlex™ S-1500, Mauna Kea Technologies, Paris, France) was passed down the working channel of the endoscope and advanced into the alveolar space. 200µM oLOX was then instilled in a total volume of 1ml in PBS.

**Keywords:** FCFM, *ex vivo*, asinine lung, LOX probe, oLOX