



**Supplementary Fig. 3.** Schematic illustration for measurements of insufflating and expiratory gas flows (A), driving (B), and insufflating and expiratory pressures (C). TTC: transtracheal catheter. VT Plus: VT Plus Analyzer. A. Set up for measuring the flows at the tip of the insufflation catheter via the flow gauge of the VT Plus Analyzer. B. Set up for measuring the driving pressure via the y-piece to the pressure gauge of the VT Plus Analyzer. C. Set up for measuring the insufflating and expiratory pressures at the tip of the insufflation catheter via a t-piece to the pressure gauge of the VT Plus Analyzer.