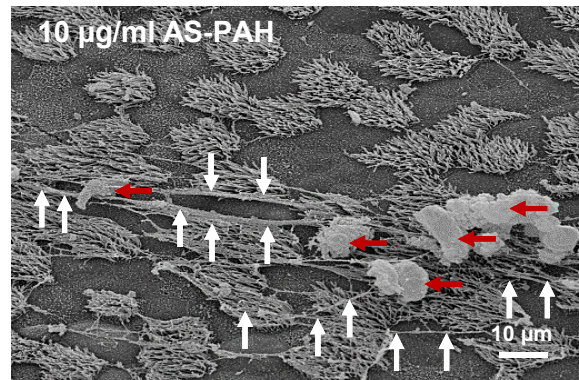
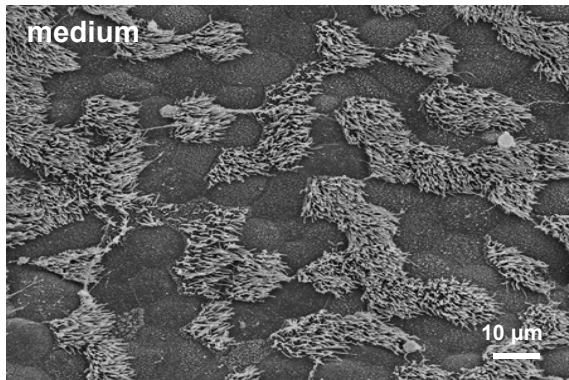
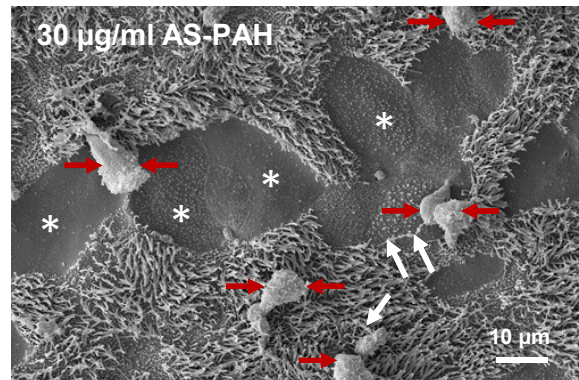
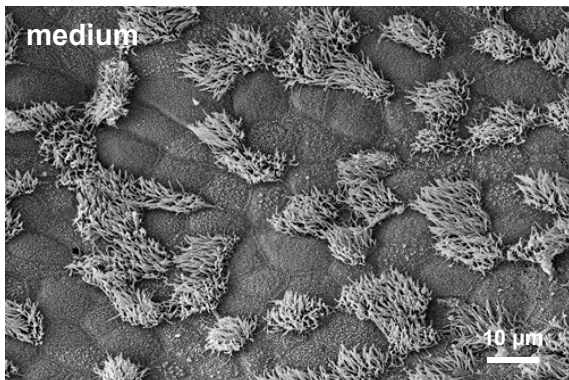


Additional file 19

A



B



AS-PAH induced mucus release and cell death.

Representative images of scanning electron microscope analysis of tracheal epithelium after exposure to 10 $\mu\text{g/ml}$ and 30 $\mu\text{g/ml}$ AS-PAH compared to medium control. White arrows indicate mucus structures. Red arrows indicate dead cells. White asterisks indicate single elongated epithelial cells compensating epithelial cell damage.