**Methods: Fluorescent microscopy; lung slice.**

Lung slices were fixed with 4% paraformaldehyde (10 min at room temperature) and then directly labeled with a 1:1000 dilution (in PBS/BSA with 3% goat serum) of fluorescein-labeled lectin from the Cry-Baby Tree, Erythrina crystagalli (ECL), (Vector Labs, CA) and with antibodies. Lung tissue slices were co-labeled with ECL and a final 1:100 fold dilution of RTII-70 antibody (a generous gift from Dr. L. Dobbs) for 1 hour to identify ATI and ATII cells, respectively. Lung slices were then incubated in goat anti-rabbit secondary antibody conjugated to Alexa 568 (1:20,000 dilution; Molecular Probes) for 30 minutes. Dopamine D1 and D2 receptor antibodies, purchased from Chemicon, were used at a 1:1000 fold dilution. Goat anti-rabbit antibody conjugated to Alexa 488 (Molecular Probes) was used as the secondary detection antibody for dopamine receptors at a 1:10,000 dilution for 1 hour. All tissue samples were mounted onto a glass slide with ProLong antifade reagent (Molecular Probes) and imaged using a Zeiss LSM 510 NLO META laser scanning confocal microscope (Zeiss, NY).

Fluorescein-labeled *Erythrina crystagalli* lectin (F-ECL) positive ATI cells. Paraformaldehyde fixed 275µm rat lung tissue slices were co-labeled with F-ECL and surfactant protein A (Alexa Red) with binding specificity for ATI, and ATII cells, respectively. A) Differential interference contrast (DIC) image B) Round ATII cells labeled with RTII70 and secondary goat anti-rabbit secondary antibody conjugated to Alexa Red (568λ excitation and C) ATI cells labeled with Fluorescein-ECL (488λ excitation). (D) all images superimposed.
**Dopamine receptor expression in lung ATI cells.** A) Confocal images of dopamine receptor D2 (top panel) and D1 receptor (bottom panel) antibody binding in PFA fixed 250 µm rat lung slice preparations.