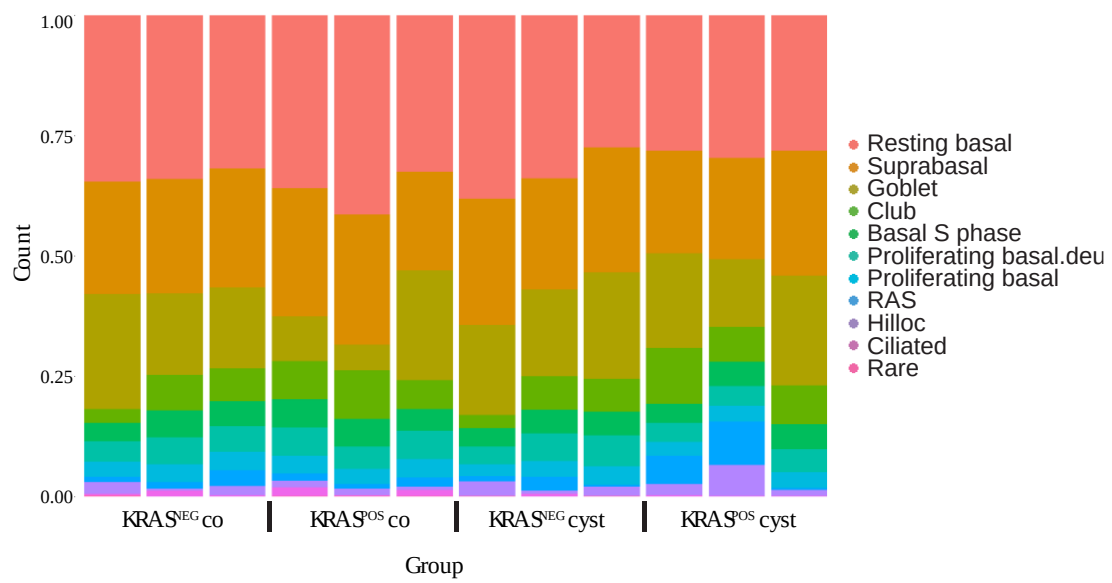


SUPPLEMENTARY FIGURES

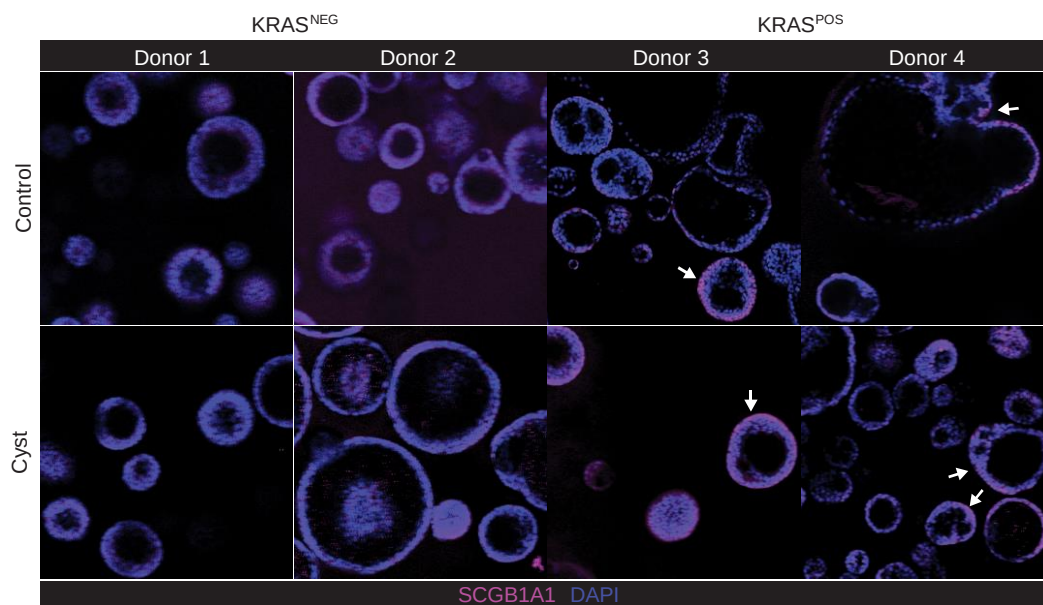
Activating KRAS mutations mark premalignant cystic structures in Congenital Pulmonary Airway Malformations

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A



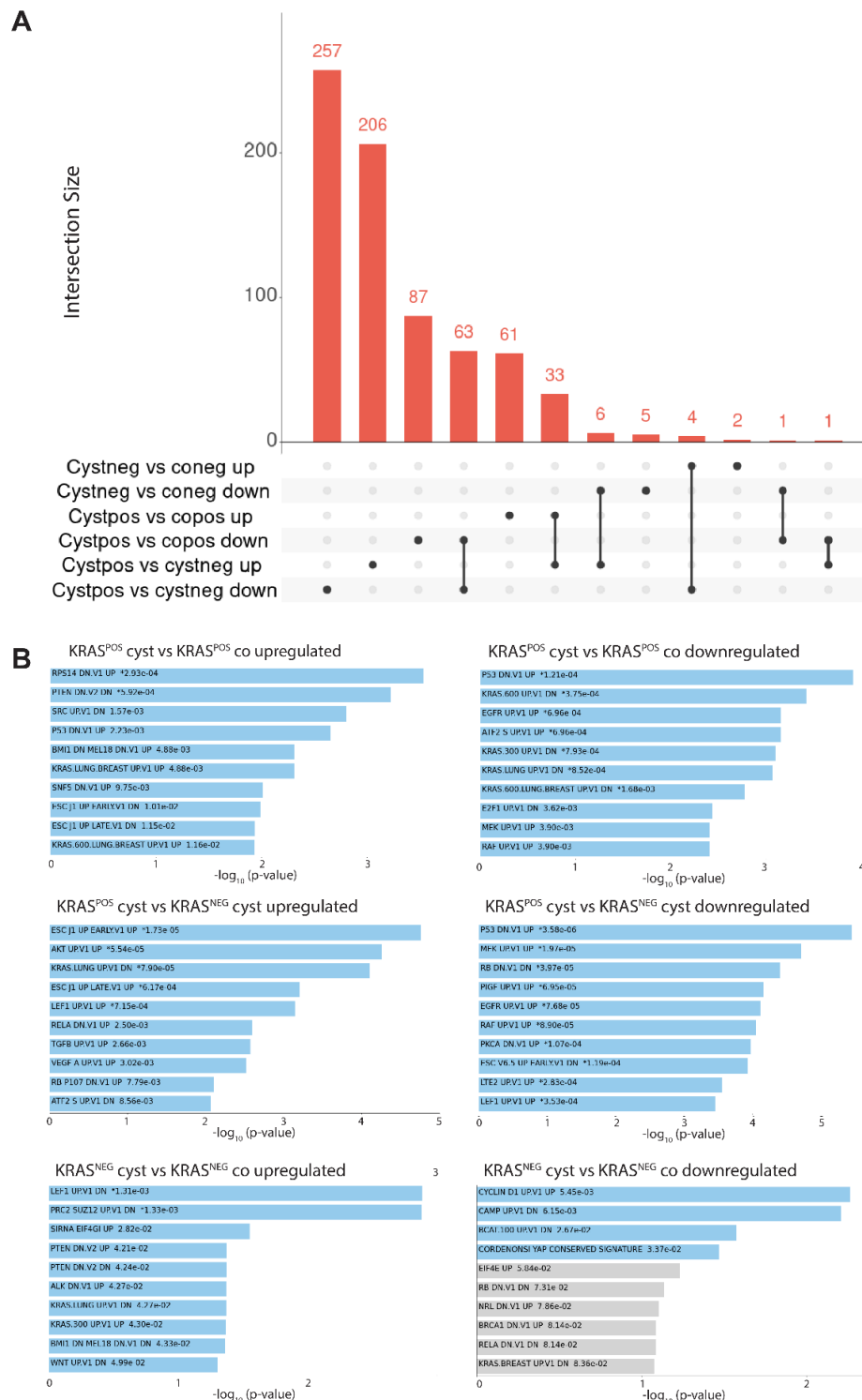
B



Supplementary figure 1: Distribution of cell types in organoids for each donor.

A. Relative distribution of cell types present in three samples of the four different groups. Colors represent the cell types, as indicated to the right of the bar graph.

B. Representative images of organoids stained with an antibody against SCGB1A1 to show the emergence of mucous producing RAS cells. SCGB1A1 positive cells (red) are indicated with white arrows, and show a clear increase in the number RAS positive cells in the KRAS positive cyst organoids.



Supplementary figure 2: Differentially expressed genes of KRAS^{POS} cyst and lung cancer overlap.

A. Overlap between number of differentially expressed genes in pseudobulk from scRNA-Seq data obtained from CPAM organoids between the following comparisons: KRAS^{NEG} cyst compared to KRAS^{NEG} co, KRAS^{POS} cyst compared to KRAS^{POS} co and KRAS^{POS} cyst compared to KRAS^{NEG} cyst.

B. Genes up - and downregulated in MSidDB oncogenic signature database from comparisons; KRAS^{POS} cyst compared to KRAS^{POS} co and KRAS^{POS} cyst compared to KRAS^{NEG} cyst.