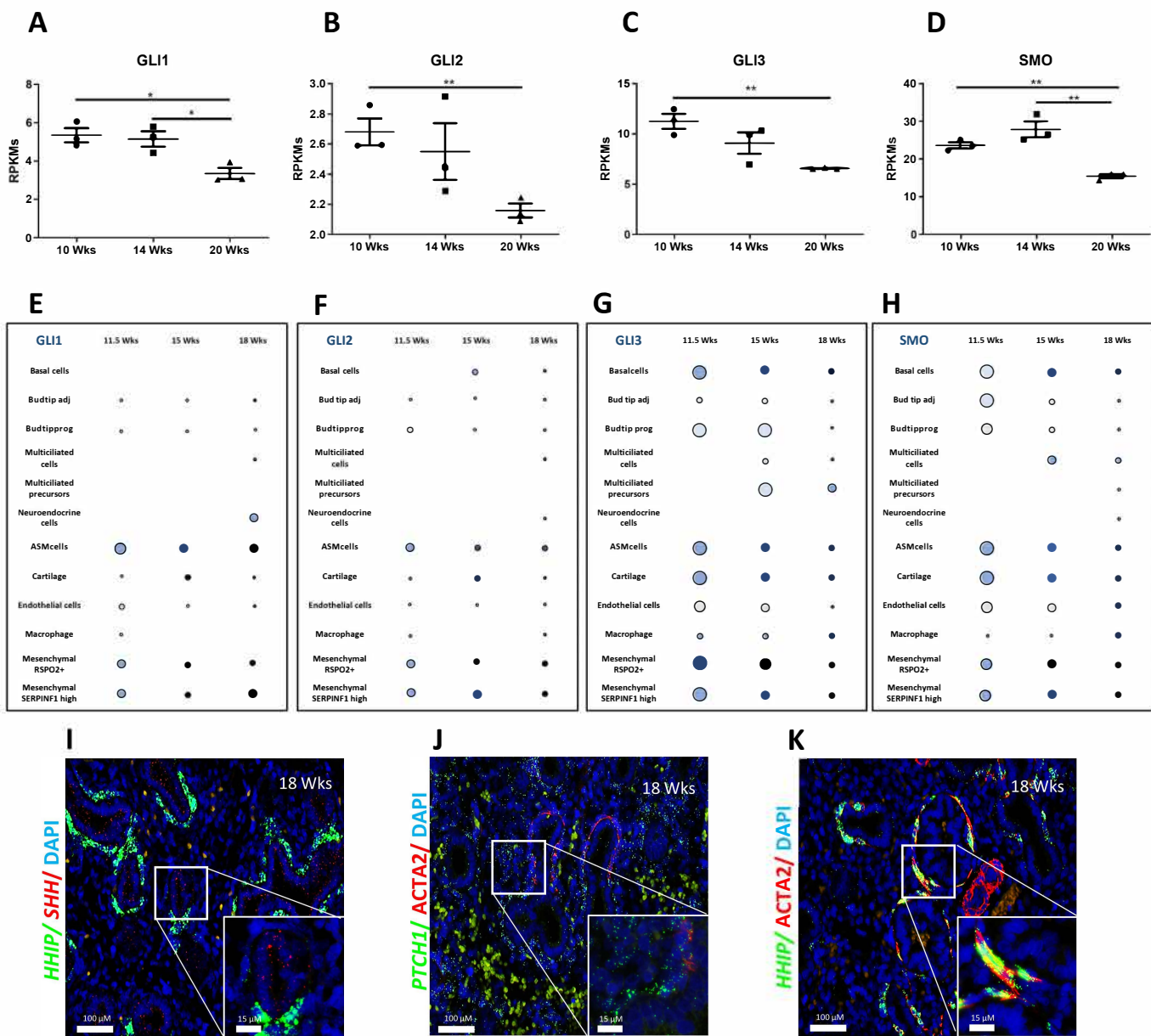
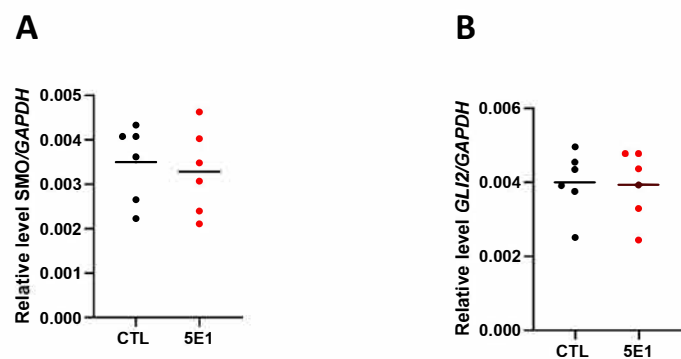


Figure S1



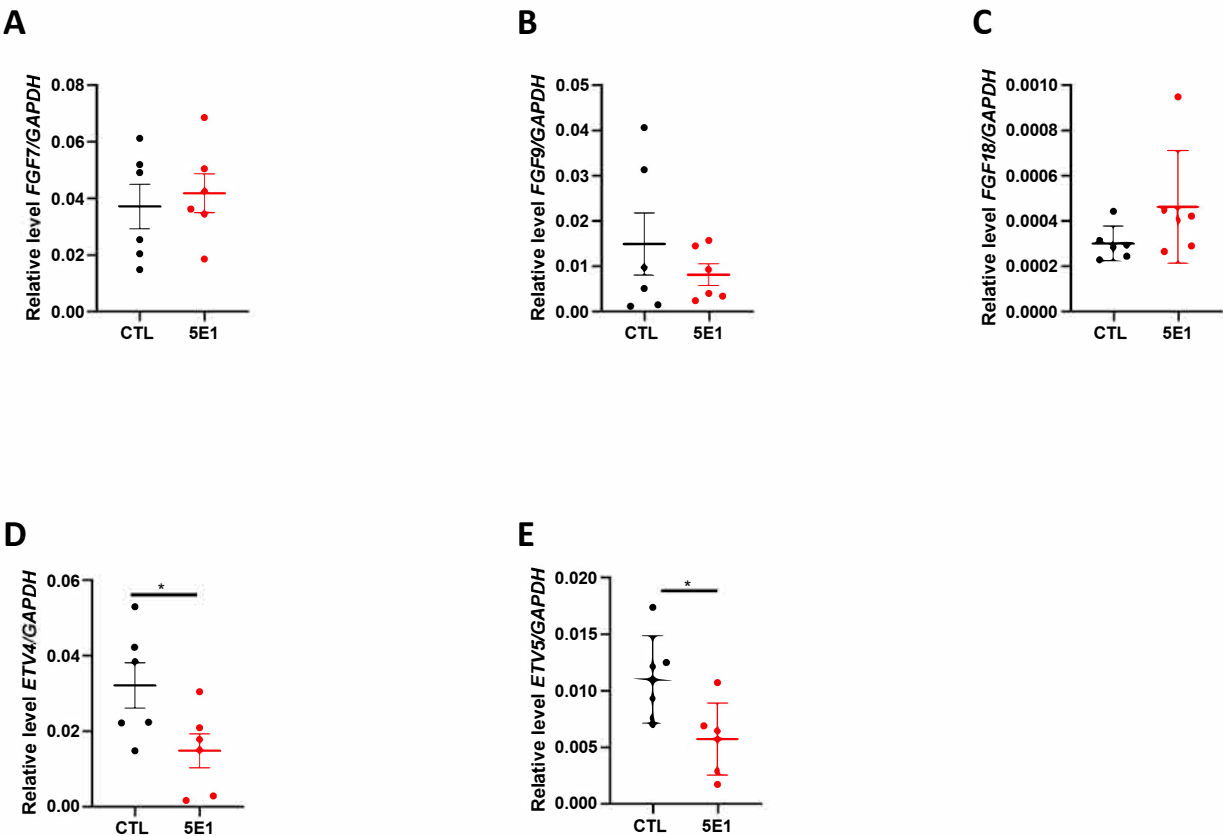
**Figure S1: Complementary HH pathway actor expression during human lung development**  
RNA expression of *GLI1* (A), *GLI2* (B), *GLI3* (C) and *SMO* (D) expressed in RPKMs  $\pm$  SEM within the developing lung at 10-, 14- and 20-week gestation ( $n=3$  per time point,  $*p<0.05$ ,  $p^{**}<0.01$ ). The dot plot shows the percentage of cells expressing the respective selected marker gene (*GLI1*, *GLI2*, *GLI3* and *SMO*) using dot size and the average expression level of that gene based on unique molecular identifier (UMI) counts (E-H). Representative pictures of *in situ* hybridization at 18 wks gestation on fetal human lung sections for *SHH* (I, red), *PTCH1* (J, green) and *HHIP* (J-K, green) with *ACTA2* (IF-red, J-K) and the respective dots quantification (L-N) (results show mean  $\pm$  SEM,  $*p<0.05$ ,  $n=3$  for each group).

Figure S2



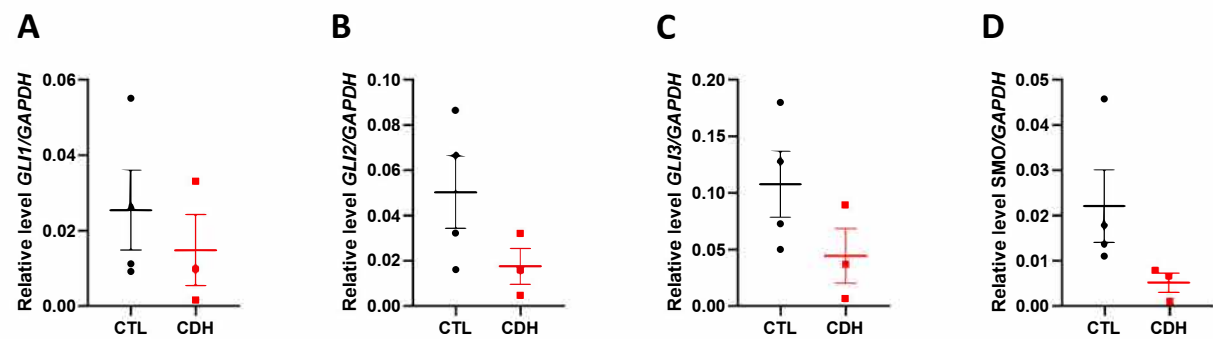
**Figure S2: Extended HH pathway components expression after 5E1 treatment**  
RT-qPCR for *SMO* (A) and *GLI2* (B) in 5E1-treated explants compared to control (n=6 for each group).

Figure S3



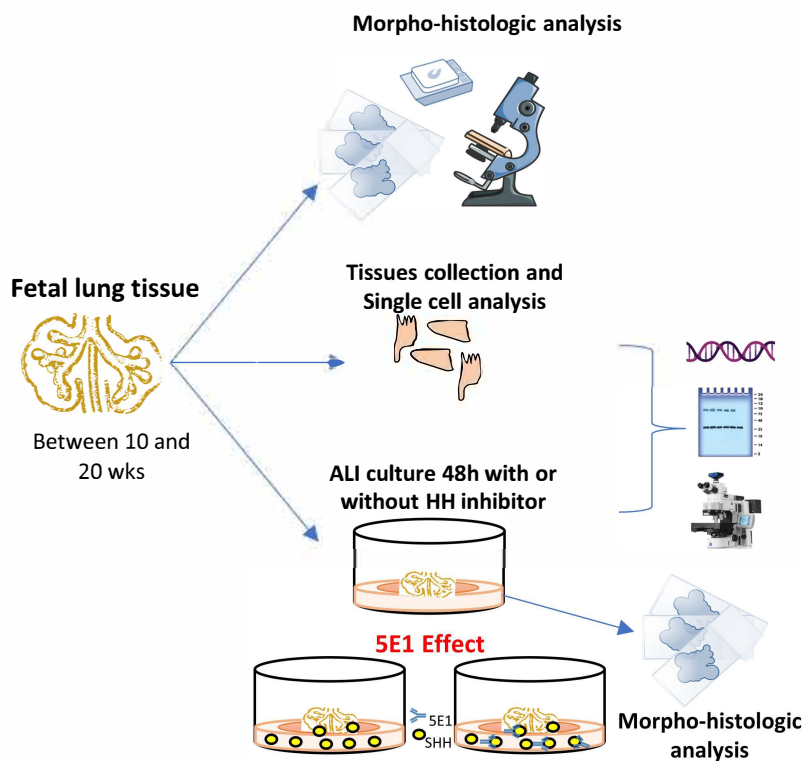
**Figure S3: HH signaling effect on FGF and WNT pathway elements**  
RT-qPCR for *FGF7* (A), *FGF9* (B), *FGF18* (C), *ETV4* (D) and *ETV5* (E) in control and 5E1-treated explants (results show mean  $\pm$  SEM, \* $p$ <0.05, n=6 for each group).

Figure S4



**Figure S4: Additional HH pathway components expression in CDH**  
RT-qPCR for *GLI1* (A), *GLI2* (B), *GLI3* (C) and *SMO* (D) in 5E1-treated explants compared to controls.

**Figure S5**



**Figure S5: Schematic representation of methodology**  
Human fetal lung explant culture, from tissue to analyses.