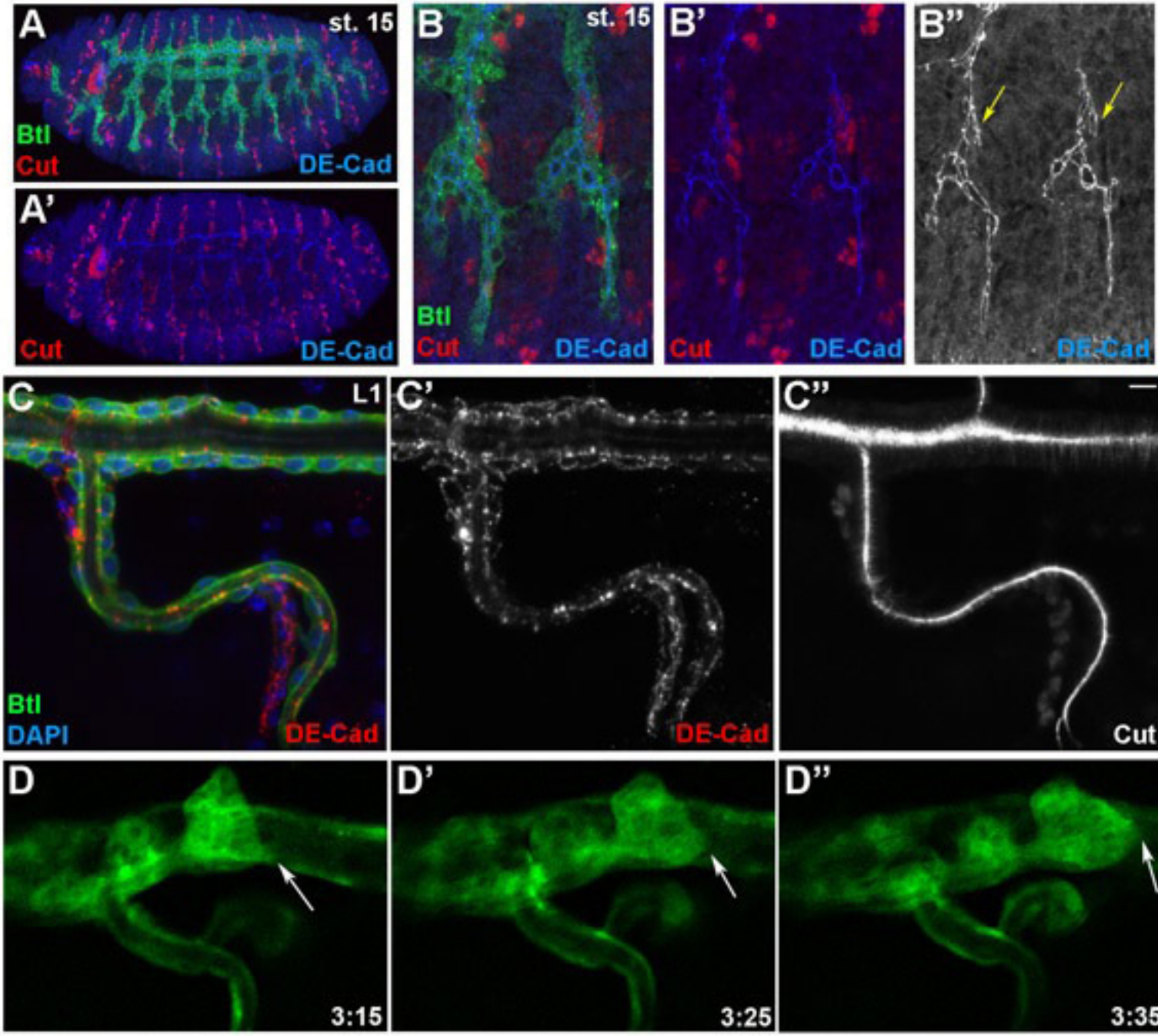
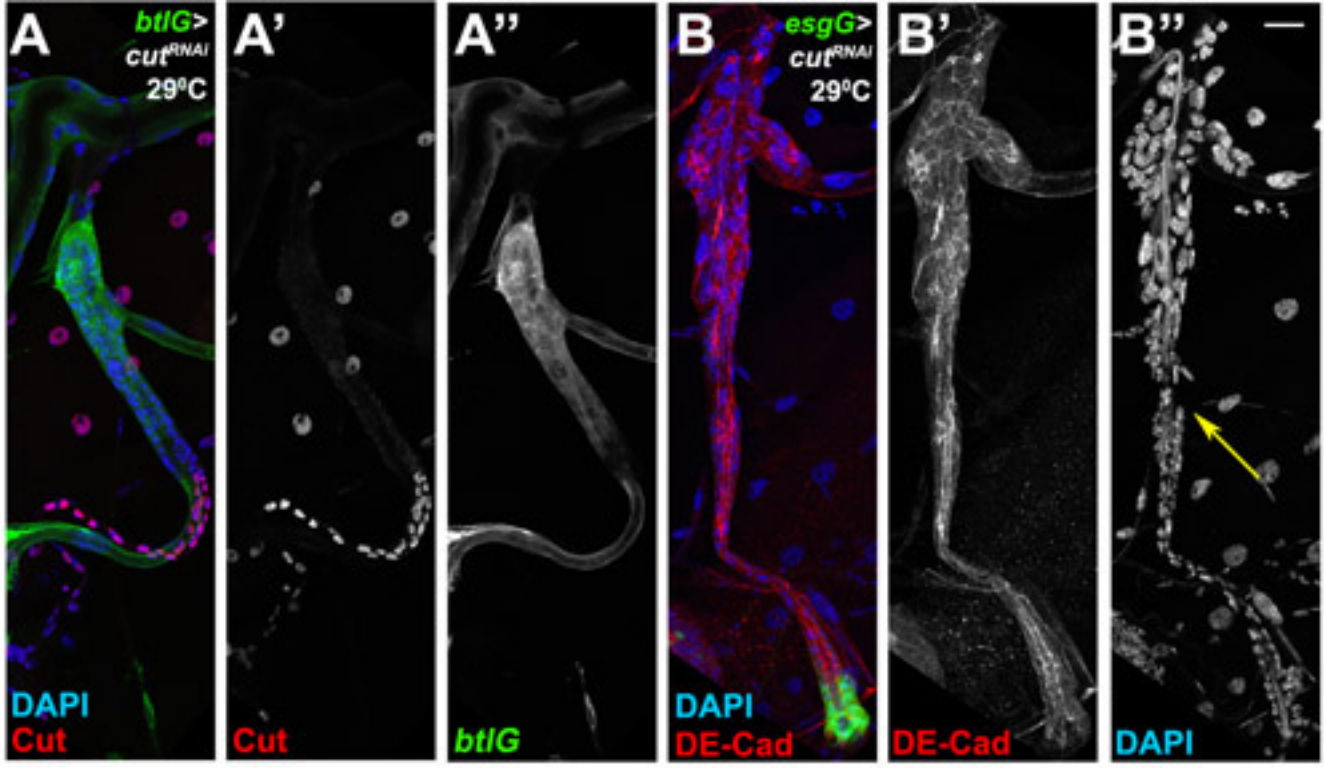


Fig. S1. SB cells are always epithelial. (A-B'') Stage 15 btl-Gal4 UAS-actGFP (green) embryo stained for Cut (red in A,A',B,B') and DE-Cadherin (blue in A,A',B,B' and white in B'') that labels epithelial cells. Yellow arrows in B'' indicate the position of the SB Cut-positive cells. (C-C'') L1 btl-Gal4 UAS-actGFP (green) larva stained for DE-Cadherin (red in C and white in C'), DAPI (blue in C) and Cut (white in C''). SB cells that do not express Btl but are Cut positive express high levels of E-Cadherin at the L1 stage. (D-D'') Time-lapse confocal movie of a btl-Gal4 UAS-GFP early pupa; the SB tracheoblasts collectively migrate on the DT towards the posterior. Time after puparium formation (APF) is shown in hours in



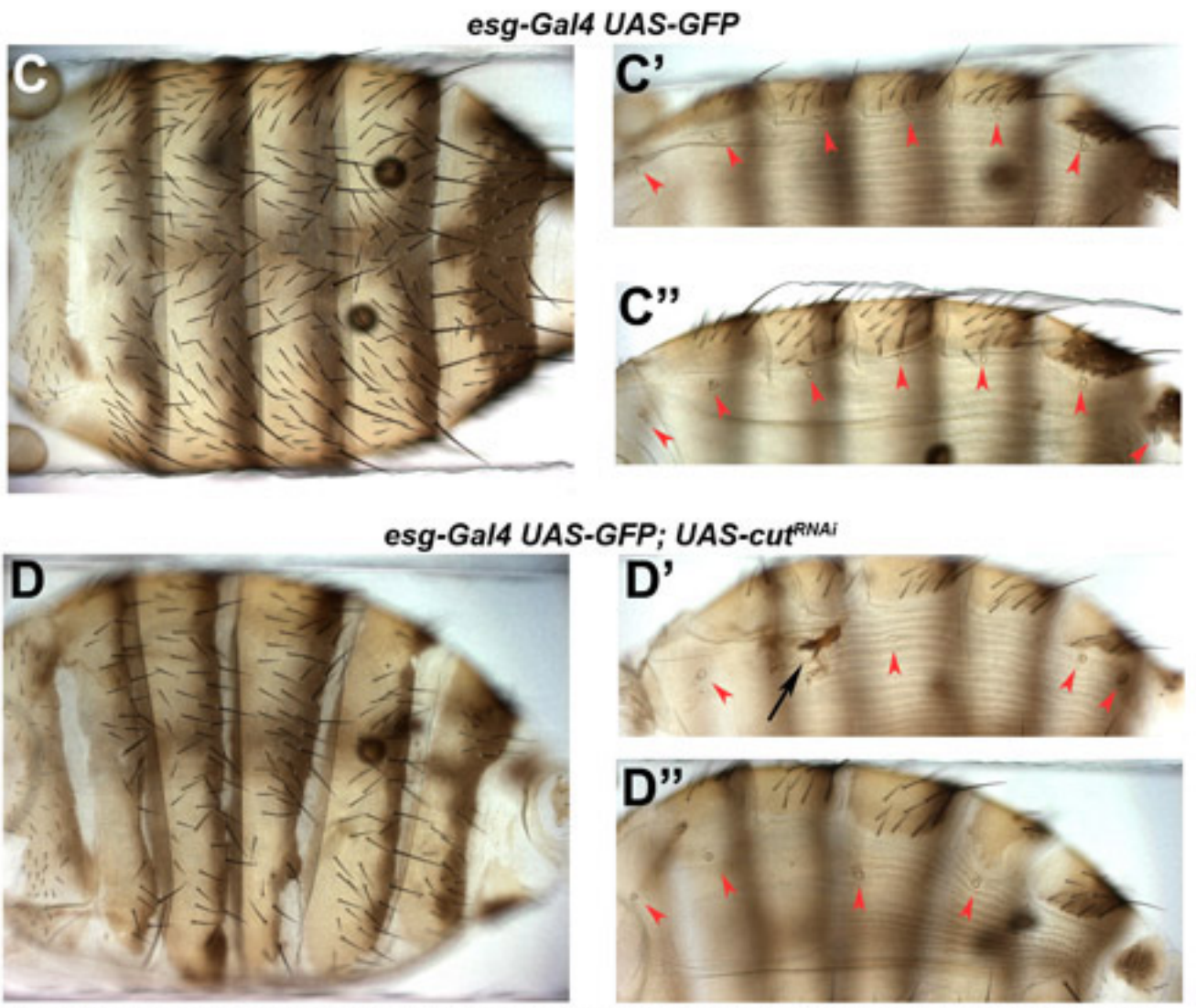


Fig. S2. Elimination of Cut from the SB cells leads to cell death and abnormal morphology of the adult spiracles. (A-A'') btl-Gal4 UAS-srcGFP; UAS-cutRNAi reared at 29°C stained for Cut (red in A,A') and DAPI (blue), green is GFP (A,A''); Cut protein is eliminated following overexpression of the UAS-cutRNAi transgene at 29°C. **(B-B'')** esg-Gal4 UAS-EGFP; UAS-cutRNAi reared at 29°C stained for DE-Cadherin (red in B,B') and DAPI (blue in B,B''); loss of Cut reduces the number of SB tracheoblasts, and causes cell death (nuclei with disrupted morphology) and breaks in the SB (yellow arrow). Scale bar: 20 µm. (C) Dorsal view of the abdomen of an esg-Gal4 UAS-EGFP adult female showing wild-type morphology of the tergites. (C',C'') Ventral view of the wild type abdomen shown in C containing seven pairs of spiracles (red arrowheads). (D) Dorsal view of the abdomen of an esg-Gal4 UAS-EGFP; UAS-cutRNAi adult female reared at 290C. Abnormal morphogenesis of the tergites is observed, possibly because Cut is involved in the morphogenesis of the abdominal histoblasts. (D',D'') Ventral view of the abdomen shown in D where fewer spiracles (red arrowheads) are formed compared with wild type. Necrotic tracheal tissue in D' is indicated by a black arrow.