

## Supplemental material

for

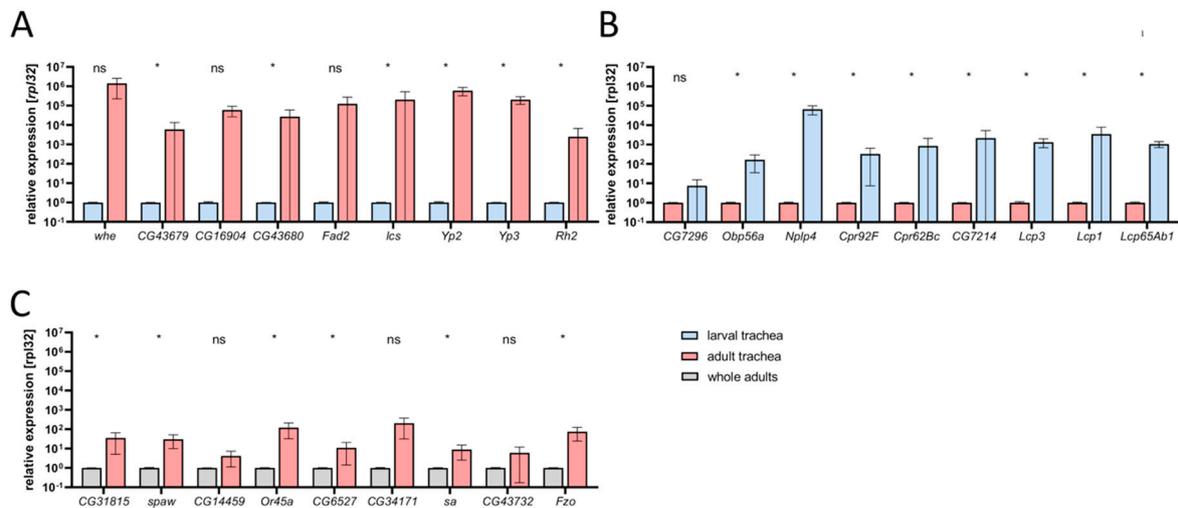
### Adult and larval tracheal systems exhibit different molecular architectures in *Drosophila*

by

Judith Bossen, Ruben Prange, Jan-Philip Kühle, Sven Künzel, Xiao Niu, Jörg U Hammel, Laura

Krieger, Mirjam Knop, Birte Ehrhardt, Karin Uliczka, Susanne Krauss-Etschmann, Thomas

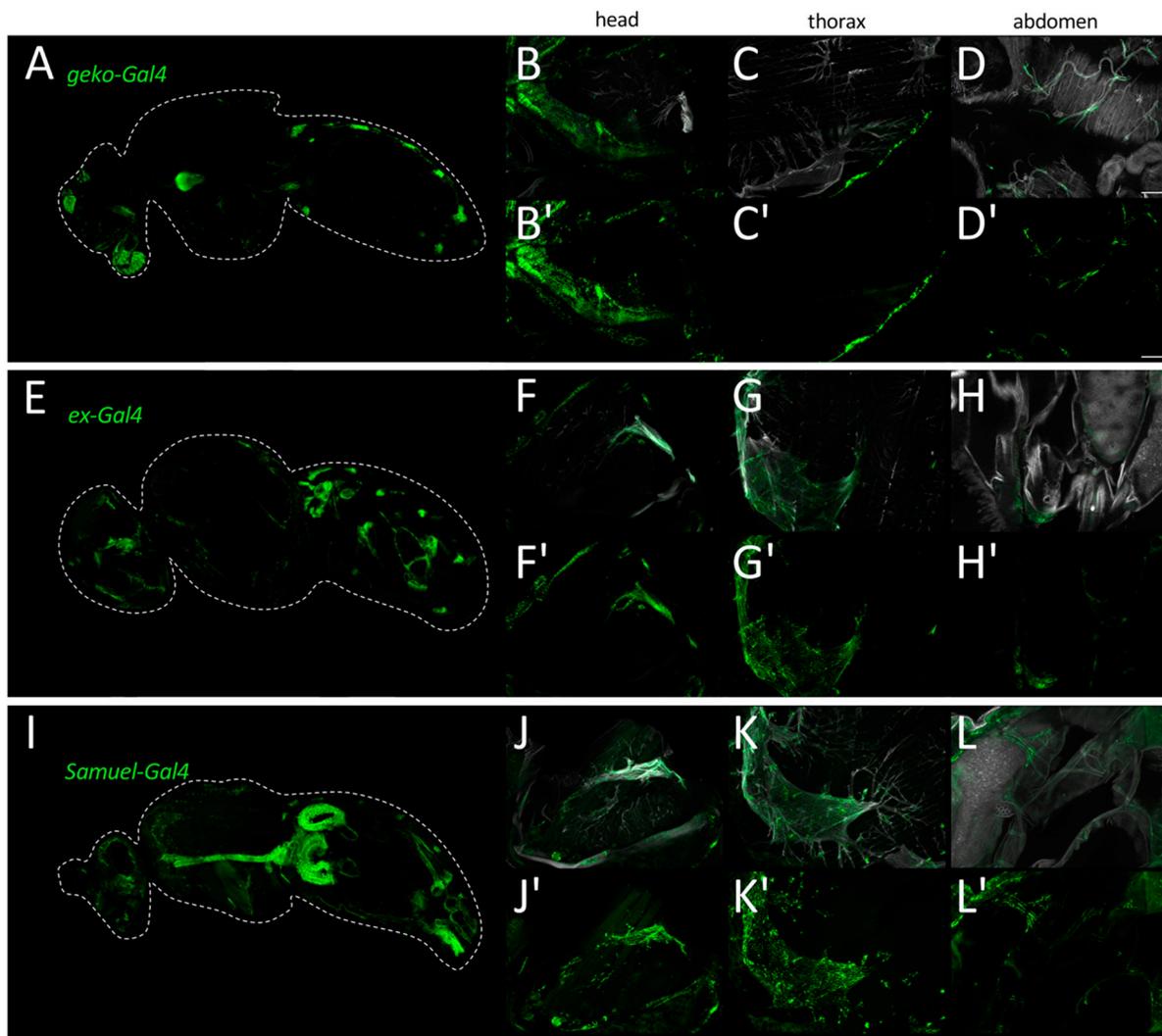
Roeder



**Figure S1: Validation of selected genes by qRT-PCR in larval and adult trachea.**

Relative expression was measured by qRT-PCR, performed with amplified cDNA from the larval trachea (blue), adult trachea (red), and whole adult animals (grey). **(A)** Selected genes enriched in the adult trachea compared to the larval trachea. **(B)** Selected genes enriched in larval trachea compared to the adult trachea. **(C)** Selected genes enriched in adult trachea

compared to whole adult animals. Significance was evaluated by the Mann-Whitney test, \* =  $p < 0.05$ , ns = not significant. Bars show mean and SD. n = 4.



**Figure S2: Expression of tracheal specific Gal4 driver lines in head, thorax and abdomen.**

(A-L') Expression of tracheal specific Gal4 driver lines in whole fly, head, thorax and abdomen. Sagittal sections of *geko-Gal4* (A-D'), *ex-Gal4* (E-H'), and *Samuel-Gal4* (I-L') crossed to *UAS-GFP* were stained with an anti-GFP nanobody. Tracheal air sacs and branches were simultaneously visualized with UV light (white; B-D, F-H, J-L). Detailed magnification of the

head (**B,B',F,F',J,J'**), thorax (**C,C',G,G',K,K'**), and abdomen (**D,D',H,H',L,L'**) are shown. Scale = 50  $\mu\text{m}$ .

### **Supplemental Table S1**

Comparison of the transcripts of adult trachea with transcripts from total adult flies.

### **Supplemental Table S2**

Comparison of the transcript levels of adult trachea vs. 3<sup>rd</sup> instar trachea.