

Figure S1. Further phenotypes of downstream region mutants. A. Wildtype male foreleg. B. Mutant foreleg of a *Dll*¹⁰⁹² / *Dll*¹ male showing moderate shortening of the femur and tibia and partial fusions of the tarsal segments among themselves and with the tibia (note the sex comb in the first tarsal segment). C. Wild type antenna. D. Partial transformation of the antenna to leg in a *Dll*^{R28} / *Df Dll* fly: note elongation of the antennal segments and reduction of the feathery arista.

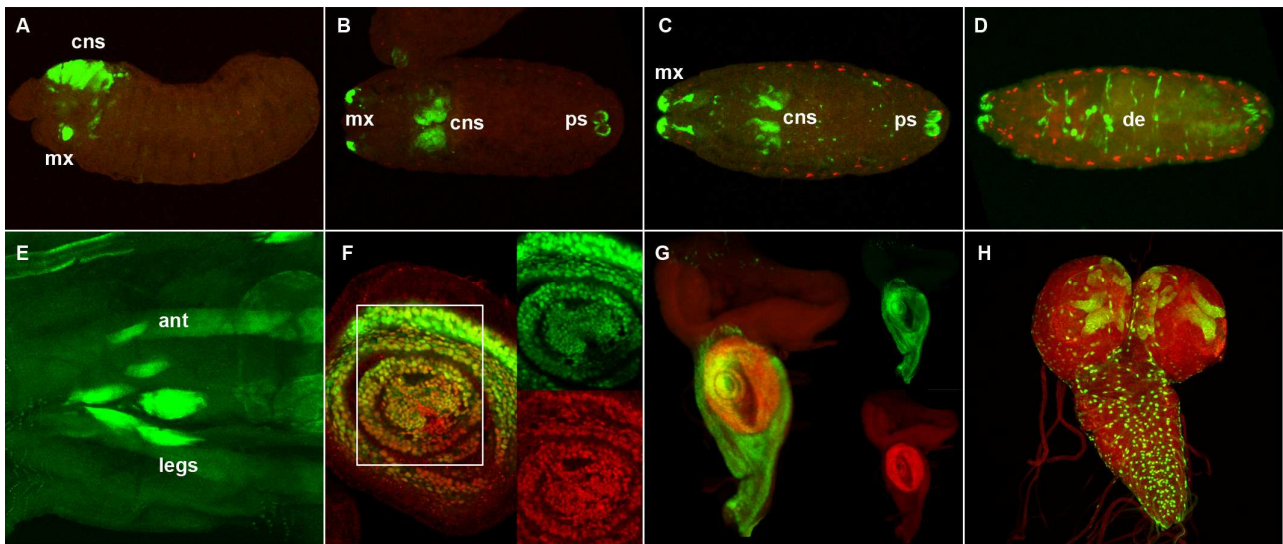


Figure S2. Expression of *Fr3-GFP*. A-D. Embryos of different stages in lateral (A) or dorsal (B-D) views, counterstained with phalloidin-rhodamine (red) to see embryo morphology. A. In a stage 13 embryo GFP expression can be observed dorsally in the delaminating central nervous system (cns) and in the already described ventral maxillary domain (mx). B. At stage 15 the maxillary domain has migrated anteriorly due to head invagination and new expression appears in the posterior spiracles (ps). C. At stage 16, parts of the ventral maxillary domain invaginate, while keeping GFP expression. D. In stage 17 several patches of expression are detected in the dorsal epidermis. E. Similar to *Fr7-GFP*, leg expression appears at around 90 h. of development. F. Confocal section of a late third instar leg disc. GFP expression (green) disappears in *Dll* clones, revealed with an anti-*Dll* antibody (red). G. In the antennal disc, GFP expression is different from the endogenous *Dll* protein (red). H. At this stage GFP can also be observed in a complex pattern in the central nervous system (counterstained with phalloidin-rhodamine).

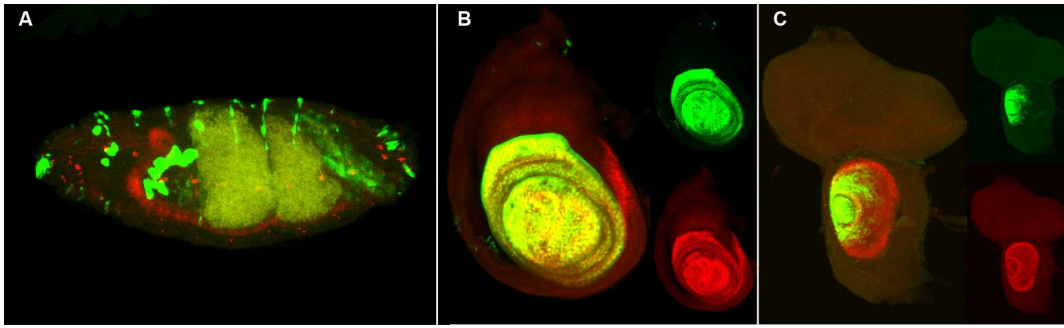


Figure S3. Expression of *Fr7-GFP*. In a stage 17 embryo in lateral view, GFP expression can be appreciated in the epidermis. B. In a late third instar leg disc GFP expression is fully coincident with the central domain of Dll (red). C. In contrast, in the antennal disc GFP expression is contained within the Dll domain.