## **Description of Additional Supplementary Files**

File Name: Supplementary Movie 1

Description: Optogenetic stimulation of C4da neurons with or without UAS-Kir2.1 driven by

SDGs-spGAL4, related to Fig. 2a.

File Name: Supplementary Movie 2

Description: Mechanical stimulation of SDGs-silenced larvae, related to Fig. 2d.

File Name: Supplementary Movie 3

Description: Mechanical stimulation of larvae with sustained responsiveness of SDGs

achieved by NaChBac expression, related to Fig. 2f.