

Title: Supplementary Movie 1.

Description: This movie shows the data from Figure 10, TBH1::GFP expressed in an RIC interneuron in live *C. elegans*. 3D-SIM with system correction. The 3D visualization is generated using ClearVolume. In the video with system correction, fluorescence can be seen above the neuron from the cell body. This results from the lower SNR and degraded axial resolution without sample correction and cannot be seen in the video with sample correction because the cell body is above the imaged volume.

Title: Supplementary Movie 2.

Description: This movie shows the data from Figure 10, TBH1::GFP expressed in an RIC interneuron in live *C. elegans*. 3D-SIM with sample correction.