

# Identification of Transcripts Responsible for Neuronal Compensatory Plasticity

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## ABSTRACT

The auditory neurons of the cricket reside in the prothoracic ganglion and are separated across a midline. When we remove a cricket's ear, the auditory interneurons that have lost input sprout new dendrites that grow across the midline and form functional connections with contralateral neurons. The shift is believed to be regulated by conserved guidance molecules such as Semaphorins, Slit, Robo, Plexin, etc. Since we only suspect these guidance molecules to be present, we intend to confirm their presence within control, uninjured ganglia first. To tackle