

Regulation of axonal development by the nuclear protein hindsight (pebbled) in the *Drosophila* visual system

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The molecules and networks involved in the process of acquisition and maintenance of the form of a mature neuron are not completely known. Using a misexpression screen we identified the gene *hindsight* as a gene involved in the process of acquisition of the neuronal morphogenesis in the *Drosophila* adult nervous system. *hindsight* encodes a transcription factor known for its role in early developmental processes such as embryonic germ band retraction and dorsal closure, as well as in the establishment of cell morphology, planar cell polarity, and epithelial integrity during retinal development. We describe here a novel function for HNT by showing that both loss and gain of function of HNT affects the pathfinding of the photoreceptors axons. By manipulating the timing and level of HNT expression, together with the number of cells manipulated we show here that the function of HNT in axonal guidance is independent of the HNT functions previously reported in retinal cells. Based on genetic in