**Supplementary Figure** 

## Myelination of Purkinje axons is critical for resilient synaptic transmission in the deep cerebellar nucleus

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Running title: Myelination regulates synaptic transmission



**Supplementary Figure 1. AP firing and propagation in** *LE* and *LES* **Purkinje cells. A.** Purkinje cells were patched at the soma and filled with fluorescent dye to visualize the axon so that a stimulating electrode could be placed on the axon. **B.** Representative traces of spontaneous AP firing in *LE* and *LES*. **C.** Backpropagation action currents in Purkinje somata resulted when the axon was stimulated with a bipolar stimulating electrode in the presence of CNQX. **D.** Failure of backpropagation currents occurred in *LES* Purkinje cells when stimulated at 50 Hz, but did not occur in *LE* cells.