

## **Description of Additional Supplementary Files**

File Name: Supplementary Movie 1

Description: Silencing L2-L5 interneurons disrupts hindlimb alternation during stepping. Prior to silencing, the hindlimbs alternated during overground stepping. DOXON-induced silencing disrupted alternation, including bouts of hindlimb “hopping.”

File Name: Supplementary Movie 1

Description: Hindlimb alternation persists during swimming when L2-L5 interneurons are conditionally silenced. Silencing L2-L5 interneurons did not disrupt hindlimb alternation during swimming.