

### Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: **Macaque hindbrain injected with AAV9 and AAV9-X1.1.**

AAV9 packaging ssAAV:CAG-eGFP and AAV9-X1.1 packaging ssAAV:CAG-tdTomato were mixed and intravenously injected at a dose of  $5 \times 10^{13}$  vg/kg per macaque (Macaca mulatta, injected within 10 days of birth, female, i.e.  $2.5 \times 10^{13}$  vg/kg per AAV). Representative overview of macaque hindbrain.