

## Supplementary Information

### Intravenous rAAV2/9 injection for murine cochlear gene delivery

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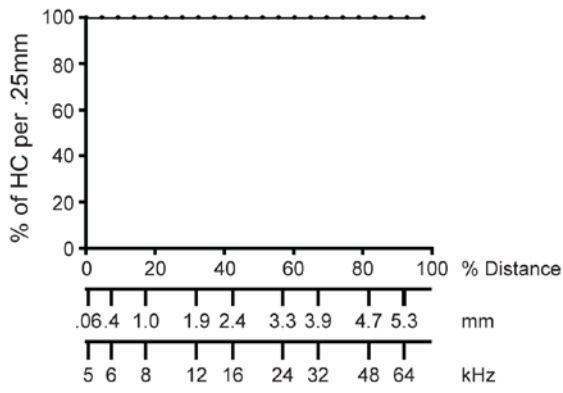
## Supplementary Figure Legends

**Supplemental Figure 1:** Percentage of surviving IHCs and OHCs (relative to WT) across a 250 $\mu$ m radius from the apical turn to the basal turn.

**Supplemental Figure 2:** Efficiency and specificity of rAAV2/9 transduction at P14 by intravenous injection (a,b) rAAV2/9 showed relatively weak eGFP expression in the apical (a) and basal (b) turn. (c) shows high resolution image of the areas in the boxed portions of a and b. Overlapping Myo7a (red) and eGFP (green) localization represents positive hair cell transduction.

**Supplemental Figure 3:** Transduction pattern in brain and skeletal muscle following systemic injection of rAAV2/9. (a-c) cortex; (d-f) cerebellum; (g-i) skeletal muscle (quadriceps). Sections from injected mice at P0-1 (high and low dose) and P14 were immunofluorescently labelled with anti-GFP antibody. (a-f) In the confocal images of brain sections, mice had eGFP expression in cortical astrocytes (arrows) and Purkinje cells (arrowheads). The expression level of eGFP positive cells was higher in the injected mice at P0-1 (high dose) compare to at P0-1 (low dose) and P14. (g-i) The transduction pattern in the quadriceps was not affected by age at injection.

30 Days IHC Survival



30 Days OHC Survival

