Supplementary Information

Supplementary Table 1. Ubiquitous GFP expression model

| Offset (kHz) | Control | SD | N | GFP | SD | N | Δ | +/- | % Diff | +/- | p-value |
|-----------------|---------|--------|---|--------|--------|---|--------|-------|--------|-------|---------|
| 0.5 | 0.8181 | 0.0412 | 9 | 0.9079 | 0.0226 | 8 | 0.0898 | 0.045 | 10.98% | 1.50% | <.0001 |
| 1 | 0.7465 | 0.0987 | 9 | 0.8883 | 0.0478 | 8 | 0.1418 | 0.105 | 19.00% | 3.76% | 0.0022 |
| 5 | 0.5210 | 0.0865 | 9 | 0.6586 | 0.0565 | 8 | 0.1375 | 0.100 | 26.40% | 3.81% | 0.0017 |
| 10 | 0.3966 | 0.1054 | 9 | 0.5270 | 0.0761 | 7 | 0.1303 | 0.135 | 32.86% | 5.44% | 0.0113 |
| 20 | 0.1614 | 0.1132 | 9 | 0.2236 | 0.1286 | 7 | 0.0621 | 0.183 | 38.49% | 7.96% | 0.3150 |

Supplementary Table 2. Cerebellar specific GFP expression model

| Offset (kHz) | Control | SD | N | GFP | SD | N | Δ | +/- | % Diff | +/- | p-value |
|-----------------|---------|--------|---|--------|--------|---|--------|-------|--------|-------|---------|
| 0.5 | 0.8667 | 0.0381 | 5 | 0.9045 | 0.0133 | 5 | 0.0378 | 0.063 | 4.36% | 2.34% | 0.0694 |
| 1 | 0.7823 | 0.0495 | 5 | 0.8530 | 0.0182 | 5 | 0.0707 | 0.082 | 9.04% | 3.21% | 0.0171 |
| 5 | 0.5576 | 0.0206 | 5 | 0.6146 | 0.0297 | 5 | 0.0570 | 0.056 | 10.22% | 2.21% | 0.0078 |
| 10 | 0.4482 | 0.0150 | 5 | 0.5078 | 0.0492 | 5 | 0.0596 | 0.080 | 13.30% | 3.25% | 0.0321 |
| 20 | 0.2042 | 0.0312 | 5 | 0.2693 | 0.0692 | 5 | 0.0650 | 0.119 | 31.83% | 5.62% | 0.0919 |

Supplementary Table 3. Cortex specific GFP expression model

| Offset (kHz) | Control | SD | N | GFP | SD | N | Δ | +/- | % Diff | +/- | p-value |
|-----------------|---------|--------|---|--------|--------|---|---------|-------|---------|-------|---------|
| 0.5 | 0.7863 | 0.0377 | 5 | 0.8639 | 0.0615 | 5 | 0.0776 | 0.113 | 9.87% | 4.45% | 0.0593 |
| 1 | 0.7421 | 0.0311 | 5 | 0.8512 | 0.0227 | 5 | 0.1091 | 0.060 | 14.71% | 2.46% | 0.0002 |
| 5 | 0.5871 | 0.0267 | 4 | 0.6148 | 0.0409 | 5 | 0.0278 | 0.095 | 4.73% | 3.19% | 0.0670 |
| 10 | 0.4820 | 0.0153 | 4 | 0.4103 | 0.0877 | 5 | -0.0716 | 0.167 | -14.86% | 4.45% | 0.1199 |
| 20 | 0.1782 | 0.0797 | 5 | 0.1231 | 0.1401 | 5 | -0.0551 | 0.252 | -30.93% | 6.41% | 0.7041 |

Legend for Tables. The **first column** is the offset frequency. The **second column** is the mean value for control animals. The **third column** is the standard deviation for control animals. The **fourth column** is the number of control animals. The **fifth column** is the mean value for GFP expressing animals. The **sixth column** is the standard deviation for control animals. The **seventh column** is the number of control animals. The **eight column** is the difference between the means. The **ninth column** is the 95% confidence interval of that difference. The **tenth column** is the percent difference between the means. The **eleventh column** is the 95% confidence interval of that percent difference. The **twelfth column** is the p-value for linear contrasts after Mixed-Model ANOVA between GFP and control animals.