**Figure 5.1.** Results from the mixed linear model for quantified membrane potential change using VSDI in the DG of homozygous transgenic animals (+/+) and controls (-/-).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **p-values for test of fixed effects** | | | |  |
|  |  | **Genotype** | **Area** | **Genotype x Area** | **Sex** | **N**  **(slices/animals)** |
|  | **1 pulse** |  |  |  |  |  |
| a | 3 months | 0.177 | **0.008** | 0.316 | 0.753 | 13/7 |
| b | 9 months | 0.757 | **0.014** | 0.583 | **0.022** | **21/10** |
| c | 12 months | 0.191 | 0.243 | **0.019** | 0.192 | 23/9 |
|  | **4 pulses** |  |  |  |  |  |
| d | 9 months | 0.28 | **0.017** | 0.68 | **0.005** | **21/10** |
| e | 12 months | 0.394 | 0.208 | **0.007** | 0.169 | 23/9 |
|  | **Bicuculline** |  |  |  |  |  |
| f | 9 months | 0.155 | 0.069 | 0.197 | 0.496 | 15/8 |
| g | 12 months | 0.596 | 0.066 | **0.016** | 0.596 | 15/9 |