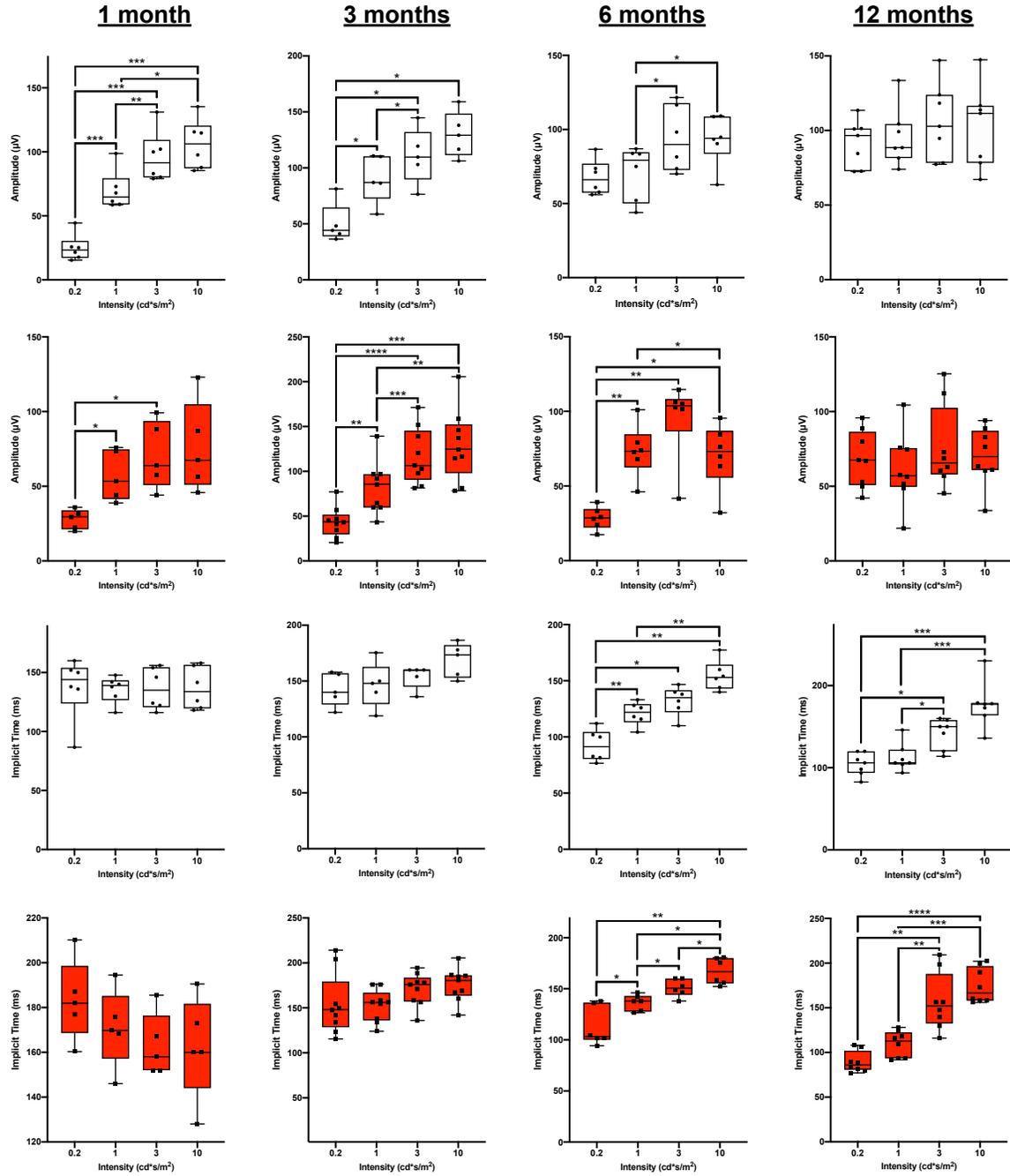


**Figure S1:** CRISPR/Cas9-induced mutation in zebrafish *rp111*. (A) Alignment of human RP1L1 (top) and zebrafish Rp111 (bottom) proteins, showing sequence conservation in the doublecortin and RP1 domains. (B) The CRISPR/Cas9-induced 16 bp deletion in the first coding exon of *rp111* in our mutant zebrafish. (C) Location of the deletion in the Rp111 protein and its predicted consequence. The mutation results in a scrambled protein sequence after amino acid 52 and a premature stop codon after amino acid 94.



**Figure S2:** Differences between stimulus responses for b-wave amplitude and implicit time for each group, analyzed using repeated-measures ANOVA. Wild-type in white; mutants in red. \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ ; \*\*\*\* $p < 0.0001$ .