

# Sustained Extracellular Electrical Stimulation Modulates the Permeability of Gap Junctions in *rd1* Mouse Retina with Photoreceptor Degeneration

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**Table S1.** P-values of statistical data presented in Figure 4. Statistical evaluation of tracer diffusion rate (TDR, Figure 4A) at 150  $\mu$ m mark for (Figure 4B1) HC-HC net and (Figure 4B2) GC-GC net assessed under different treatment conditions. One-way ANOVA was applied to estimate the statistical significance, followed by a Dunnett's test for multiple comparisons. Significance levels: not significant (n.s.), \*:  $p < 0.05$ , \*\*:  $p < 0.01$  and \*\*\*:  $p < 0.001$ .

A) Statistical analysis of tracer diffusion rates in the outer retina						
	Control	0.5 V, 1 h	1 V, 0.5 h	1 V, 1 h	1 V, 2 h	CBX
Control		0.74 (n.s.)	1.00 (n.s.)	5.26E-11 (***)	1.15E-08 (***)	3.41E-12 (***)
0.5 V, 1 h	0.74 (n.s.)		0.98 (n.s.)	3.52E-08 (***)	4.68E-06 (***)	1.05E-09 (***)
1 V, 0.5 h	1.00 (n.s.)	0.98 (n.s.)		4.62E-09 (***)	4.13E-07 (***)	1.89E-10 (***)
1 V, 1 h	5.26E-11 (***)	3.52E-08 (***)	4.62E-09 (***)		1.00 (n.s.)	0.68 (n.s.)
1 V, 2 h	1.15E-08 (***)	4.68E-06 (***)	4.13E-07 (***)	1.00 (n.s.)		0.20 (n.s.)
CBX	3.41E-12 (***)	1.05E-09 (***)	1.89E-10 (***)	0.68 (n.s.)	0.20 (n.s.)	
B) Statistical analysis of tracer diffusion rates in the ganglion cell layer						
	Control	0.5 V, 1 h	1 V, 0.5 h	1 V, 1 h	1 V, 2 h	CBX
Control		0.94 (n.s.)	0.32 (n.s.)	8.75E-07 (***)	9.14E-06 (***)	3.60E-07 (***)
0.5 V, 1 h	0.94 (n.s.)		1.00 (n.s.)	9.06E-05 (***)	5.26E-04 (***)	2.52E-05 (***)
1 V, 0.5 h	0.32 (n.s.)	1.00 (n.s.)		9.72E-03 (**)	2.40E-02 (*)	2.11E-03 (**)
1 V, 1 h	8.75E-07 (***)	9.06E-05 (***)	9.72E-03 (**)		1.00 (n.s.)	1.00 (n.s.)
1 V, 2 h	9.14E-06 (***)	5.26E-04 (***)	2.40E-02 (*)	1.00 (n.s.)		1.00 (n.s.)
CBX	3.60E-07 (***)	2.52E-05 (***)	2.11E-03 (**)	1.00 (n.s.)	1.00 (n.s.)	