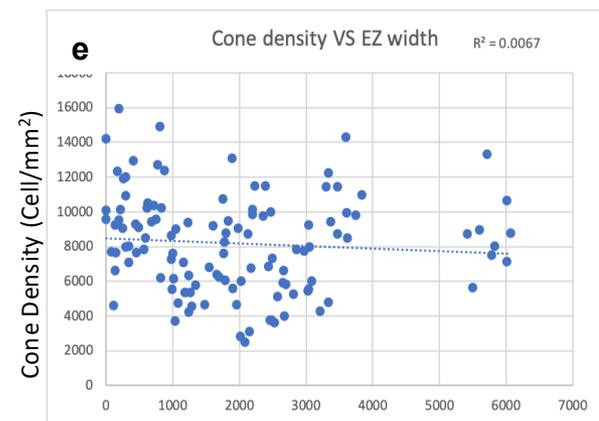
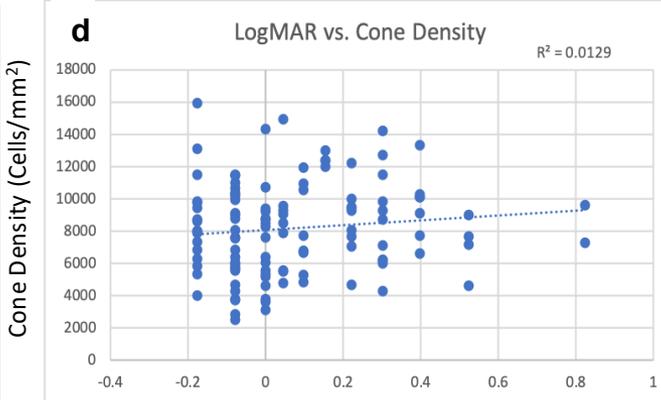
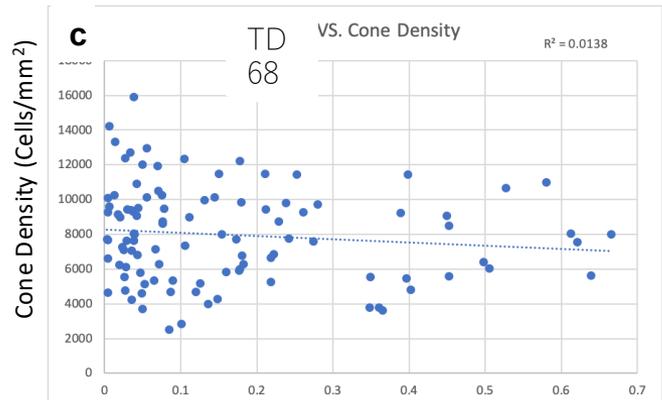
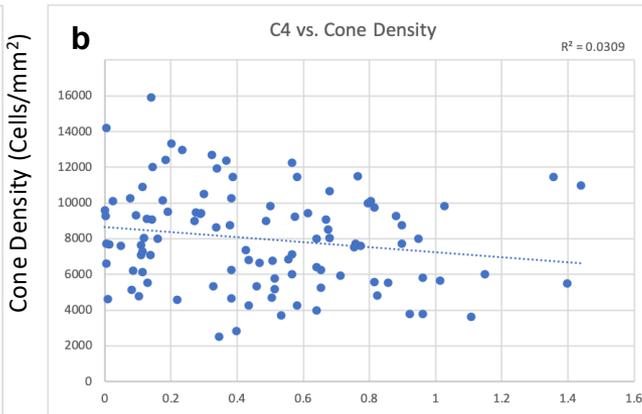
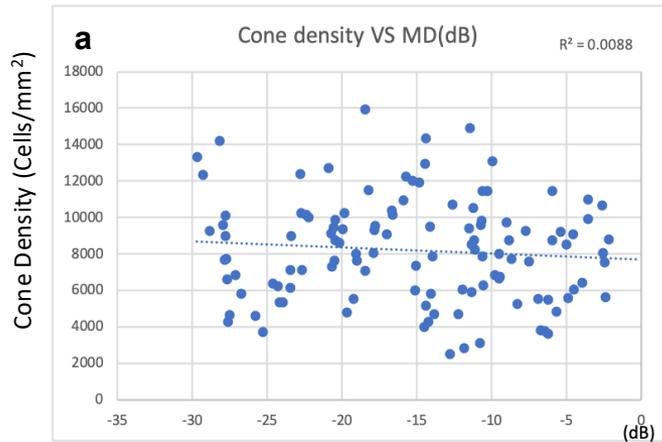


Supplementary Table S1 Details of genes included in the 50-gene panel

<i>ABCA4</i>	<i>BBS1</i>	<i>BEST1</i>	<i>C2orf71</i>	<i>CDH23</i>	<i>CDHR1</i>	<i>CEP290</i>	<i>CHM</i>	<i>CNGA1</i>	<i>CNGB1</i>
<i>CNGB3</i>	<i>CRB1</i>	<i>CRX</i>	<i>CYP4V2</i>	<i>EYS</i>	<i>FAM161A</i>	<i>GPR98</i>	<i>GUCA1A</i>	<i>GUCY2D</i>	<i>IMPDH1</i>
<i>IMPG2</i>	<i>KLHL7</i>	<i>LRAT</i>	<i>MAK</i>	<i>MERTK</i>	<i>MYO7A</i>	<i>NR2E3</i>	<i>NRL</i>	<i>PCDH15</i>	<i>PDE6B</i>
<i>PRCD</i>	<i>PROM1</i>	<i>PRPF31</i>	<i>PRPF6</i>	<i>PRPH2</i>	<i>RDH12</i>	<i>RDH5</i>	<i>RHO</i>	<i>ROM1</i>	<i>RP1</i>
<i>RP1L1</i>	<i>RP2</i>	<i>RP9</i>	<i>RPE65</i>	<i>RPGR</i>	<i>RS1</i>	<i>SNRNP</i>	<i>TOPORS</i>	<i>TULP1</i>	<i>USH2A</i>
						200			

Supplementary Table S2. P-values from Paired t-tests Comparing Cone Density at Each Follow-up Time Point with Baseline (M0)

<b>P-values</b>	2N	4N	2T	4T
M0 vs. M6	0.00740977	0.00027742	0.00084687	0.04621451
M0 vs. M12	0.00067331	0.00006431	0.00006431	0.00002481
M0 vs. M18	0.0000004	0.00233196	0.00005865	0.00000455
M0 vs. M24	0.00011515	0.00066844	0.00000016	0.00004371



Supplementary Fig. S1. Correlation analysis between CD and functional/structural parameters. CD showed consistently weak correlations with various functional and structural metrics: (A) MD, (B) central four points sensitivity (C4), (C) total deviation at 68 points (TD68), (D) LogMAR visual acuity (VA), and (E) EZ width on OCT. No clear linear trends were observed in any of these comparisons, with  $R^2$  values ranging from 0.0067 to 0.0309.