

OCT PARAMETERS	BASELINE	3 d			2 w			4 w			6 w			8 w			12 w			24 w		
		Mean ± SD	%Ch	p	Mean ± SD	%Ch	p	Mean ± SD	%Ch	p	Mean ± SD	%Ch	p	Mean ± SD	%Ch	p	Mean ± SD	%Ch	p	Mean ± SD	%Ch	p
CENTRAL	274.52 ± 14.97	303.60 ± 22.78	10.59	0.07	284.79 ± 25.79	3.74	0.21	266.62 ± 21.03	-2.88	0.45	295.00 ± 10.29	7.46	0.01	278.00 ± 23.63	1.27	0.46	247.67 ± 18.61	-9.78	0.27	259.40 ± 15.27	-5.51	0.60
	281.13 ± 14.07	276.40 ± 19.16	-1.67		277.56 ± 22.06	-1.26		271.19 ± 21.80	-3.53		269.60 ± 11.86	-4.09		269.50 ± 24.02	-4.13		273.33 ± 32.62	-2.77		266.00 ± 27.45	-5.38	
INNER INFERIOR	260.16 ± 15.09	273.40 ± 14.92	5.09	0.18	262.85 ± 18.42	1.01	0.02	256.24 ± 10.77	-1.51	0.76	270.20 ± 14.67	3.86	0.20	259.11 ± 11.33	-0.40	0.34	249.67 ± 5.85	-4.03	0.27	256.60 ± 14.63	-1.37	0.46
	262.35 ± 9.02	261.60 ± 10.59	-0.28		254.36 ± 10.48	-3.04		255.33 ± 11.11	-2.68		261.00 ± 16.31	-0.51		253.18 ± 12.75	-3.50		258.00 ± 13.00	-1.66		250.80 ± 14.95	-4.40	
OUTER INFERIOR	251.68 ± 9.47	259.60 ± 10.85	3.14	0.11	253.91 ± 16.81	0.88	0.07	247.67 ± 9.37	-1.59	0.86	252.80 ± 9.33	0.45	0.53	250.11 ± 10.25	-0.23	0.73	242.00 ± 6.55	-3.85	0.27	241.20 ± 8.16	-4.16	0.53
	253.10 ± 8.16	250.20 ± 4.65	-1.14		248.28 ± 8.49	-1.90		248.78 ± 8.89	-1.71		248.80 ± 13.00	-1.70		248.27 ± 9.32	-4.11		248.00 ± 5.56	-2.02		240.20 ± 6.45	-5.10	
INNER SUPERIOR	253.84 ± 9.723	267.80 ± 10.89	5.50	0.08	255.16 ± 19.27	0.52	0.64	245.62 ± 13.20	-3.24	0.28	264.40 ± 6.95	4.16	0.04	243.00 ± 10.07	-4.27	0.13	235.33 ± 2.08	-7.29	0.05	238.60 ± 4.93	-6.00	0.67
	256.03 ± 9.73	256.00 ± 8.15	-0.01		253.34 ± 12.42	-1.05		248.78 ± 9.43	-2.83		248.60 ± 14.43	-2.90		251.90 ± 12.54	-1.61		249.00 ± 10.58	-2.75		236.80 ± 12.43	-7.51	
OUTER SUPERIOR	255.81 ± 7.58	262.40 ± 6.42	2.57	0.15	254.44 ± 14.58	-0.53	0.73	246.70 ± 10.94	-3.56	0.14	258.00 ± 6.20	0.86	0.29	246.25 ± 12.95	-3.74	0.19	243.67 ± 4.72	-4.75	0.18	244.80 ± 3.96	-4.30	1.00
	257.13 ± 9.35	256.20 ± 6.05	-0.36		255.46 ± 9.91	-0.65		251.08 ± 9.17	-2.35		252.20 ± 10.30	-1.92		254.50 ± 11.25	-1.02		251.67 ± 6.42	-2.12		241.40 ± 9.45	-6.12	
INNER NASAL	256.77 ± 10.69	272.20 ± 10.68	6.01	0.03	258.21 ± 15.89	0.56	0.17	248.05 ± 10.66	-3.40	0.15	266.00 ± 9.67	3.59	0.75	251.44 ± 13.72	-2.08	0.56	245.00 ± 8.54	-4.58	0.65	243.40 ± 6.189	-5.21	0.20
	259.52 ± 9.16	257.80 ± 7.12	-0.66		253.67 ± 11.61	-2.25		252.96 ± 8.68	-2.53		263.80 ± 3.49	1.65		254.00 ± 8.69	-2.13		249.00 ± 5.29	-4.05		250.80 ± 10.75	-3.36	
OUTER NASAL	252.06 ± 7.68	261.00 ± 8.74	3.54	0.05	252.48 ± 11.66	0.17	0.41	247.71 ± 12.13	-1.72	0.29	255.00 ± 9.61	1.17	0.52	249.00 ± 10.95	-1.21	0.69	251.00 ± 10.44	-0.42	0.51	240.40 ± 4.66	-4.63	0.67
	254.35 ± 8.51	251.20 ± 3.83	-1.24		250.22 ± 11.28	-1.62		249.73 ± 8.31	-1.82		251.60 ± 4.61	-1.08		252.78 ± 11.69	-0.62		251.00 ± 3.60	-1.32		241.80 ± 3.83	-4.93	
INNER TEMPORAL	255.97 ± 10.97	270.20 ± 13.36	5.56	0.18	255.76 ± 24.14	-0.08	0.20	256.90 ± 31.49	0.36	0.05	265.80 ± 12.00	3.84	0.11	250.67 ± 12.70	-2.07	0.90	241.67 ± 7.50	-5.59	0.12	250.20 ± 5.80	-2.25	0.05
	257.42 ± 9.31	257.80 ± 13.38	0.14		249.89 ± 12.30	-2.92		246.56 ± 8.91	-4.22		252.20 ± 14.29	-2.03		248.20 ± 12.59	-3.58		251.33 ± 7.23	-2.37		239.20 ± 9.68	-7.08	
OUTER TEMPORAL	253.87 ± 9.33	259.80 ± 8.16	2.33	0.20	253.70 ± 12.76	-0.06	0.86	249.67 ± 16.93	-1.65	0.23	255.00 ± 7.31	0.45	0.46	247.78 ± 9.71	-2.40	0.22	243.67 ± 4.72	-4.02	0.12	243.60 ± 4.98	-4.05	0.83
	254.39 ± 8.68	253.80 ± 5.45	-0.23		253.22 ± 9.94	-0.46		252.26 ± 8.17	-0.84		249.60 ± 6.18	-1.88		253.80 ± 8.89	-0.23		252.67 ± 4.93	-0.68		245.60 ± 9.18	-3.46	
TOTAL VOLUME	1.96 ± 0.08	2.00 ± 0.07	2.04	0.20	1.82 ± 0.10	-7.14	0.27	1.76 ± 0.08	-10.20	0.19	1.86 ± 0.05	-5.10	0.24	1.77 ± 0.06	-9.69	0.85	1.72 ± 0.03	-12.24	0.27	1.73 ± 0.03	-11.73	0.67

RETINAL THICKNESS

	1.97 ± 0.06	2.00 ± 0.07	1.52		1.80 ± 0.07	-8.63		1.78 ± 0.07	-9.64		1.80 ± 0.06	-8.63		1.76 ± 0.11	-10.66		1.79 ± 0.05	-9.14		1.73 ± 0.06	-12.18		
RNFL THICKNESS	GLOBAL	46.97 ± 6.30	52.60 ± 6.80	11.99	0.22	49.66 ± 11.63	5.73	0.02	44.20 ± 7.83	-5.90	0.91	48.80 ± 11.38	3.90	0.62	48.88 ± 11.99	4.07	0.30	45.67 ± 2.51	-2.77	0.26	43.00 ± 9.00	-8.45	0.91
		47.68 ± 3.28	47.80 ± 4.43	0.25		44.56 ± 5.53	-6.54		44.08 ± 4.51	-7.55		45.00 ± 7.07	-5.62		42.90 ± 8.37	-10.03		43.67 ± 2.88	-8.41		41.00 ± 5.09	-14.01	
	INFERIOR TEMPORAL	47.87 ± 11.60	51.20 ± 6.30	6.95	0.15	51.56 ± 15.04	7.71	0.02	52.05 ± 11.24	8.73	0.00	36.20 ± 15.30	-24.38	0.22	54.43 ± 13.60	13.70	0.07	49.67 ± 5.68	3.76	0.18	45.40 ± 5.81	-5.16	0.29
		51.26 ± 9.81	56.00 ± 2.55	9.25		44.53 ± 8.76	-13.13		43.19 ± 8.73	-15.74		47.75 ± 10.65	-6.85		43.30 ± 10.13	-15.53		44.33 ± 3.05	-13.52		43.20 ± 10.23	-15.72	
	INFERIOR NASAL	49.81 ± 11.23	47.00 ± 8.45	-5.64	0.37	52.22 ± 16.06	4.84	0.22	53.45 ± 11.78	7.31	0.48	35.20 ± 13.02	-29.33	0.14	56.25 ± 9.45	12.93	0.16	56.67 ± 13.65	13.77	0.51	45.00 ± 10.07	-9.66	0.52
		52.45 ± 6.94	51.00 ± 4.52	-2.76		48.39 ± 8.87	-7.74		51.77 ± 11.41	-1.30		47.50 ± 9.25	-9.44		47.30 ± 11.51	-9.82		52.33 ± 2.08	-0.23		47.80 ± 8.31	-8.87	
	SUPERIOR TEMPORAL	49.48 ± 11.07	62.80 ± 15.12	26.92	0.09	48.41 ± 17.33	-2.16	0.57	35.35 ± 15.05	-28.56	0.01	64.40 ± 22.78	30.15	0.05	36.62 ± 10.62	-25.99	0.13	41.67 ± 17.78	-15.78	0.51	41.20 ± 17.13	-16.73	0.75
		49.84 ± 9.69	48.00 ± 8.09	-3.69		46.36 ± 12.51	-6.98		44.92 ± 8.58	-9.87		40.00 ± 9.05	-19.74		45.10 ± 13.37	-9.51		42.00 ± 3.60	-15.73		40.00 ± 8.57	-19.74	
	SUPERIOR NASAL	40.48 ± 8.69	49.20 ± 7.69	21.54	0.01	41.72 ± 15.08	3.06	0.50	31.50 ± 14.00	-22.18	0.12	45.80 ± 7.46	13.14	0.01	35.50 ± 13.69	-12.30	0.45	29.33 ± 18.23	-27.54	0.37	33.80 ± 12.57	-16.50	0.75
		38.32 ± 9.27	35.60 ± 6.73	-7.10		39.61 ± 10.41	3.37		37.96 ± 9.71	-0.94		28.25 ± 6.23	-26.28		40.20 ± 12.34	4.91		39.00 ± 8.88	1.77		34.60 ± 10.55	-9.71	
	NASAL	45.26 ± 8.44	48.20 ± 10.94	6.49	0.26	46.22 ± 13.39	2.12	0.12	43.50 ± 9.76	-3.89	0.89	37.40 ± 4.50	-17.37	0.26	45.13 ± 10.19	-0.29	0.37	46.00 ± 5.19	1.63	0.65	43.20 ± 10.47	-4.55	0.75
		43.26 ± 7.69	41.80 ± 4.65	-3.37		41.92 ± 8.21	-3.10		44.88 ± 11.87	3.74		41.00 ± 6.32	-5.22		40.40 ± 10.90	-6.61		42.67 ± 8.32	-1.36		39.20 ± 10.13	-9.39	
	TEMPORAL	48.84 ± 9.75	56.40 ± 6.95	15.48	0.73	53.19 ± 12.20	8.91	0.01	47.10 ± 11.15	-3.56	0.19	67.20 ± 26.16	37.59	0.38	55.75 ± 20.56	14.15	0.19	48.00 ± 3.00	-1.72	0.12	46.40 ± 7.19	-5.00	0.24
		51.74 ± 8.51	54.60 ± 8.84	5.53		46.19 ± 11.26	-10.73		42.58 ± 10.59	-17.70		56.75 ± 22.09	9.68		42.80 ± 15.54	-17.28		44.00 ± 2.00	-14.96		41.60 ± 9.47	-19.60	
GCL THICKNESS	CENTRAL	22.13 ± 2.70	23.80 ± 2.58	7.54	0.42	20.03 ± 3.33	-9.49	0.49	18.57 ± 2.67	-16.09	0.47	25.00 ± 4.52	12.97	0.17	18.67 ± 3.12	-15.63	0.86	17.00 ± 2.64	-23.18	0.37	17.20 ± 1.92	-22.28	0.75
		22.65 ± 2.19	22.20 ± 3.34	-1.98		19.47 ± 3.43	-14.04		18.00 ± 3.06	-20.53		21.00 ± 3.46	-7.28		19.00 ± 4.02	-16.11		18.67 ± 1.52	-17.57		17.80 ± 3.27	-21.41	
	INNER INFERIOR	28.16 ± 2.36	29.80 ± 2.28	5.82	0.21	25.59 ± 2.97	-9.13	0.14	24.57 ± 3.64	-12.75	0.80	29.80 ± 2.16	5.82	0.24	23.89 ± 2.31	-15.16	0.72	24.67 ± 0.57	-12.39	0.81	25.60 ± 1.67	-9.09	0.74
		27.45 ± 1.80	27.60 ± 2.88	0.55		24.61 ± 2.58	-10.35		24.96 ± 2.71	-9.07		28.20 ± 1.92	2.73		24.36 ± 1.43	-11.26		24.67 ± 1.52	-10.13		26.20 ± 1.09	-4.55	
	OUTER INFERIOR	26.61 ± 1.72	26.60 ± 0.54	-0.04	0.76	24.47 ± 2.33	-8.04	0.57	24.05 ± 2.81	-9.62	0.16	27.00 ± 1.73	1.47	0.27	24.22 ± 2.38	-8.98	0.78	22.33 ± 1.52	-16.08	0.04	24.20 ± 1.92	-9.06	0.33
		26.77 ± 1.49	26.80 ± 1.30	0.11		24.78 ± 2.19	-7.43		24.85 ± 1.87	-7.17		26.00 ± 1.22	-2.88		24.45 ± 2.42	-8.67		25.67 ± 0.57	-4.11		23.80 ± 0.83	-11.09	

INNER SUPERIOR	26.45 ± 1.71	25.80 ± 3.96	-2.46	23.34 ± 3.71	-11.75	20.76 ± 3.17	-21.51	27.20 ± 2.38	2.84	21.50 ± 2.39	-18.71	21.33 ± 0.57	-19.36	20.80 ± 2.49	-21.36
	0.64	0.33	0.15	0.09	0.44	0.10	0.59	0.44	0.10	0.59	0.44	0.10	0.59	0.44	0.10
OUTER SUPERIOR	26.42 ± 1.62	26.80 ± 2.38	1.51	29.20 ± 3.72	10.61	22.30 ± 2.61	-15.53	22.80 ± 4.32	-13.64	20.90 ± 3.69	-20.83	20.00 ± 1.00	-24.24	20.20 ± 2.77	-23.48
	0.09	0.60	0.08	0.59	0.59	0.82	0.40	0.59	0.59	0.82	0.40	0.59	0.59	0.82	0.40
INNER NASAL	25.74 ± 1.98	27.40 ± 0.89	6.45	23.69 ± 3.17	-7.96	21.70 ± 3.32	-15.70	26.40 ± 1.14	2.56	22.88 ± 2.10	-11.11	22.67 ± 1.15	-11.93	24.40 ± 3.50	-5.21
	0.09	0.60	0.08	0.59	0.59	0.82	0.40	0.59	0.59	0.82	0.40	0.59	0.59	0.82	0.40
OUTER NASAL	25.32 ± 2.08	26.20 ± 1.09	3.47	23.31 ± 2.77	-7.94	23.58 ± 2.31	-6.87	25.80 ± 1.78	1.90	22.10 ± 3.24	-12.72	22.33 ± 1.15	-11.81	22.20 ± 4.08	-12.32
	0.09	0.60	0.08	0.59	0.59	0.82	0.40	0.59	0.59	0.82	0.40	0.59	0.59	0.82	0.40
INNER NASAL	25.65 ± 2.61	22.60 ± 4.15	-11.89	21.64 ± 4.22	-15.63	22.48 ± 2.82	-12.36	25.00 ± 3.00	-2.53	22.44 ± 3.74	-12.51	21.00 ± 2.64	-18.13	23.00 ± 1.58	-10.33
	0.42	0.12	0.36	0.91	0.65	0.26	0.75	0.65	0.26	0.75	0.65	0.26	0.75	0.65	0.26
OUTER NASAL	25.65 ± 2.13	24.60 ± 3.28	-4.09	23.08 ± 3.42	-10.02	23.33 ± 2.85	-9.04	25.20 ± 2.28	-1.75	23.50 ± 1.78	-8.38	23.00 ± 1.00	-10.33	22.40 ± 2.30	-12.67
	0.42	0.12	0.36	0.91	0.65	0.26	0.75	0.65	0.26	0.75	0.65	0.26	0.75	0.65	0.26
INNER TEMPORAL	26.00 ± 2.25	23.60 ± 4.15	-9.23	22.06 ± 3.11	-15.15	23.48 ± 2.90	-9.69	25.60 ± 2.07	-1.54	24.00 ± 2.23	-7.69	22.67 ± 3.21	-12.81	23.40 ± 1.34	-10.00
	0.49	0.02	0.15	0.39	0.59	0.50	0.82	0.59	0.50	0.82	0.50	0.82	0.50	0.82	0.82
OUTER TEMPORAL	26.45 ± 1.76	25.00 ± 1.22	-5.48	23.75 ± 3.11	-10.21	24.38 ± 2.31	-7.83	24.40 ± 2.70	-7.75	23.56 ± 1.74	-10.93	22.67 ± 0.57	-14.29	22.80 ± 2.38	-13.80
	0.49	0.02	0.15	0.39	0.59	0.50	0.82	0.59	0.50	0.82	0.50	0.82	0.50	0.82	0.82
INNER TEMPORAL	25.68 ± 3.93	24.00 ± 2.12	-6.54	22.12 ± 3.96	-13.86	22.19 ± 3.57	-13.59	24.20 ± 2.95	-5.76	21.78 ± 3.23	-15.19	25.00 ± 3.60	-2.65	21.80 ± 1.92	-15.11
	0.65	0.53	0.49	0.58	0.48	0.37	0.59	0.48	0.37	0.59	0.48	0.37	0.59	0.48	0.37
OUTER TEMPORAL	25.61 ± 2.20	25.00 ± 4.35	-2.38	21.56 ± 3.53	-15.81	23.00 ± 2.64	-10.19	25.20 ± 2.68	-1.60	22.10 ± 4.63	-13.71	22.33 ± 2.08	-12.81	22.60 ± 2.07	-11.75
	0.65	0.53	0.49	0.58	0.48	0.37	0.59	0.48	0.37	0.59	0.48	0.37	0.59	0.48	0.37
TOTAL VOLUME	26.61 ± 2.90	24.40 ± 2.96	-8.30	23.36 ± 3.01	-12.21	23.24 ± 2.87	-12.66	24.40 ± 3.20	-8.31	23.22 ± 2.33	-12.74	25.67 ± 4.04	-3.53	24.80 ± 1.78	-6.80
	0.21	0.81	0.03	0.34	0.48	1.00	0.38	0.48	1.00	0.38	0.48	1.00	0.38	0.48	0.38
TOTAL VOLUME	27.03 ± 2.16	26.60 ± 2.07	-1.59	23.06 ± 3.78	-14.69	25.07 ± 2.12	-7.25	26.20 ± 2.28	-3.07	23.50 ± 4.50	-13.06	25.00 ± 0.00	-7.51	23.80 ± 1.92	-11.95
	0.21	0.81	0.03	0.34	0.48	1.00	0.38	0.48	1.00	0.38	0.48	1.00	0.38	0.48	0.38
TOTAL VOLUME	0.18 ± 0.01	0.18 ± 0.01	0	0.16 ± 0.01	-11.11	0.15 ± 0.01	-16.67	0.18 ± 0.01	0.00	0.16 ± 0.01	-11.11	0.16 ± 0.01	-11.11	0.16 ± 0.01	-11.11
	0.55	0.53	0.13	0.74	0.92	0.63	0.65	0.92	0.63	0.65	0.92	0.63	0.65	0.92	0.65
TOTAL VOLUME	0.18 ± 0.00	0.18 ± 0.01	0	0.16 ± 0.01	-11.11	0.16 ± 0.01	-11.11	0.17 ± 0.00	-5.56	0.15 ± 0.01	-16.67	0.16 ± 0.00	-11.11	0.15 ± 0.01	-16.67
	0.55	0.53	0.13	0.74	0.92	0.63	0.65	0.92	0.63	0.65	0.92	0.63	0.65	0.92	0.65

Supplementary Table 1: **Structural neuroretinal analysis using Optical Coherence Tomography (OCT) of the [BRI-LAP] cohort (rats with ocular hypertension in both eyes and brimonidine-Laponite formulation in the right eye) over 24 weeks.** RNFL: Retinal nerve fibre layer; GCL: Ganglion cell layer complex; thickness in microns (μm); mean \pm SD (SD: standard deviation), %Ch: percentage change; $p < 0.05$ statistical significance. Cells are coloured grey when the right eye treated with Bri-Lap formulation showed thicker sectors and/or lower percentage loss than the untreated hypertensive left eye. Upper cell: right eye. Lower cell: left eye.

OCT PARAMETERS	BASELINE	p	2 w	p	4 w	p	6 w	p	8 w	p	12 w	p	24 w	p			
RETINAL THICKNESS	CENTRAL		285.25 ± 15.75		271.67 ± 12.22		271.33 ± 21.38		265.05 ± 19.43		271.71 ± 11.22		265.22 ± 18.72		255.00 ± 18.17		
				0.016		0.375		0.965		0.003*		0.873		0.209		0.745	
		274.52 ± 14.97		284.79 ± 25.79		266.62 ± 21.03		295.00 ± 10.29		278.00 ± 23.63		247.67 ± 18.61		259.40 ± 15.27			
	INNER INFERIOR		261.87 ± 9.96		261.67 ± 12.74		260.67 ± 4.50		262.05 ± 10.05		256.71 ± 8.80		254.83 ± 9.19		245.00 ± 12.91		0.372
				0.616		0.824		0.382		0.302		0.672		0.290		256.60 ± 14.63	
		260.16 ± 15.09		262.85 ± 18.42		256.24 ± 10.77		270.20 ± 14.67		259.11 ± 11.33		249.67 ± 5.85					
	OUTER INFERIOR		251.29 ± 8.11		243.33 ± 17.61		244.33 ± 6.11		261.18 ± 13.15		252.00 ± 9.52		251.06 ± 11.36		237.43 ± 11.74		0.570
				0.885		0.504		0.406		0.126		0.560		0.130		241.20 ± 8.16	
		251.68 ± 9.47		253.91 ± 16.81		247.67 ± 9.37		252.80 ± 9.33		250.11 ± 10.25		242.00 ± 6.55					
	INNER SUPERIOR		257.00 ± 6.55		261.00 ± 7.21		244.00 ± 4.35		255.18 ± 15.56		262.71 ± 30.472		253.11 ± 23.62		240.86 ± 10.18		0.416
				0.158		0.345		0.965		0.031		0.056		0.056		238.60 ± 4.93	
		253.84 ± 9.72		255.16 ± 19.27		245.62 ± 13.20		264.40 ± 6.95		243.00 ± 10.07		235.33 ± 2.08					
	OUTER SUPERIOR		255.00 ± 8.89		262.33 ± 6.50		245.00 ± 9.53		264.18 ± 15.49		264.71 ± 21.46		260.44 ± 22.89		245.57 ± 15.61		0.744
				0.552		0.184		0.784		0.573		0.042		0.070		244.80 ± 3.96	
		255.81 ± 7.58		254.44 ± 14.58		246.70 ± 10.94		258.00 ± 6.20		246.25 ± 12.95		243.67 ± 4.72					
	INNER NASAL		258.67 ± 7.19		261.00 ± 8.18		250.00 ± 4.58		255.64 ± 14.71		260.86 ± 16.487		254.39 ± 17.03		247.71 ± 17.28		0.088
			0.208		0.606		0.631		0.223		0.289		0.290		243.40 ± 6.18		
	256.77 ± 10.69		258.21 ± 15.89		248.05 ± 10.66		266.00 ± 9.67		251.44 ± 13.72		245.00 ± 8.54						
OUTER NASAL		252.58 ± 7.93		253.67 ± 2.51		244.33 ± 6.65		258.95 ± 10.92		261.00 ± 17.16		255.33 ± 18.95		250.00 ± 8.22		0.028	
			0.912		0.886		0.569		0.454		0.167		0.650		240.40 ± 4.66		
	252.06 ± 7.68		252.48 ± 11.66		247.71 ± 12.13		255.00 ± 9.61		249.00 ± 10.95		251.00 ± 10.44						
INNER TEMPORAL		257.83 ± 10.08		259.00 ± 3.60		247.67 ± 4.61		257.91 ± 17.520		267.71 ± 34.70		253.61 ± 22.14		248.29 ± 13.62		0.807	
			0.439		0.731		0.570		0.118		0.339		0.174		250.20 ± 5.80		
	255.97 ± 10.97		255.76 ± 24.14		256.90 ± 31.49		265.80 ± 12.00		250.67 ± 12.70		241.67 ± 7.50						
OUTER TEMPORAL		252.46 ± 7.51		253.00 ± 2.64		243.33 ± 7.50		265.91 ± 20.09		270.00 ± 30.82		259.79 ± 24.88		252.00 ± 16.41		0.122	
			0.508		0.932		0.406		0.189		0.039		0.118		243.60 ± 4.98		
	253.87 ± 9.33		253.70 ± 12.76		249.67 ± 16.93		255.00 ± 7.31		247.78 ± 9.71		243.67 ± 4.72						

TOTAL VOLUME	1.99 ± 0.02		1.82 ± 0.00		1.76 ± 0.05		1.84 ± 0.10		1.85 ± 0.13		1.81 ± 0.11		1.71 ± 0.16	
	0.081		0.883		0.693		0.617		0.222		0.144		0.624	
	1.96 ± 0.08		1.82 ± 0.10		1.76 ± 0.08		1.86 ± 0.05		1.77 ± 0.06		1.72 ± 0.03		1.73 ± 0.03	
GLOBAL	48.21 ± 3.79		47.67 ± 6.35		50.67 ± 7.76		43.23 ± 4.62		41.17 ± 3.76		43.15 ± 9.53		40.86 ± 4.22	
	0.220		0.906		0.170		0.317		0.363		0.200		0.935	
	46.97 ± 6.30		49.66 ± 11.63		44.20 ± 7.83		48.80 ± 11.38		48.88 ± 11.99		45.67 ± 2.51		43.00 ± 9.00	
INFERIOR TEMPORAL	45.46 ± 7.12		46.00 ± 16.82		42.67 ± 3.21		45.68 ± 10.20		41.17 ± 5.07		41.80 ± 12.46		38.29 ± 4.46	
	0.475		0.929		0.108		0.247		0.032		0.156		0.034	
	47.87 ± 11.60		51.56 ± 15.04		52.05 ± 11.24		36.20 ± 15.30		54.43 ± 13.60		49.67 ± 5.68		45.40 ± 5.81	
INFERIOR NASAL	49.54 ± 7.12		52.67 ± 5.77		48.67 ± 1.52		46.50 ± 9.22		44.50 ± 6.53		45.10 ± 9.33		42.43 ± 8.77	
	0.581		0.679		0.143		0.091		0.028		0.100		0.626	
	49.81 ± 11.23		52.22 ± 16.06		53.45 ± 11.78		35.20 ± 13.02		56.25 ± 9.45		56.67 ± 13.65		45.00 ± 10.07	
SUPERIOR TEMPORAL	51.13 ± 8.17		54.67 ± 9.23		62.67 ± 14.74		37.81 ± 15.72		41.17 ± 13.81		43.60 ± 22.02		40.00 ± 12.66	
	0.333		0.392		0.022		0.007*		0.272		0.855		0.684	
	49.48 ± 11.07		48.41 ± 17.33		35.35 ± 15.05		64.40 ± 22.78		36.62 ± 10.62		41.67 ± 17.78		41.20 ± 17.13	
SUPERIOR NASAL	43.71 ± 7.05		44.67 ± 7.23		56.00 ± 20.07		32.55 ± 14.37		28.00 ± 10.65		33.55 ± 22.62		35.57 ± 8.65	
	0.381		0.637		0.045		0.039		0.517		0.784		0.569	
	40.48 ± 8.69		41.72 ± 15.08		31.50 ± 14.00		45.80 ± 7.46		35.50 ± 13.69		29.33 ± 18.23		33.80 ± 12.57	
NASAL	46.50 ± 7.15		46.67 ± 5.03		43.67 ± 2.30		44.32 ± 8.15		43.00 ± 3.89		43.15 ± 8.52		43.29 ± 3.54	
	0.284		0.616		0.964		0.042		0.438		0.292		0.289	
	45.26 ± 8.44		46.22 ± 13.99		43.50 ± 9.76		37.40 ± 4.50		45.13 ± 10.19		46.00 ± 5.19		43.20 ± 10.47	
TEMPORAL	51.29 ± 8.73		43.67 ± 8.02		53.00 ± 15.71		46.68 ± 10.46		44.17 ± 7.78		47.40 ± 12.04		42.43 ± 8.03	
	0.158		0.136		0.583		0.029		0.174		0.409		0.328	
	48.84 ± 9.75		53.19 ± 12.20		47.10 ± 11.15		67.20 ± 26.16		55.75 ± 20.56		48.00 ± 3.00		46.40 ± 7.19	
CENTRAL	22.33 ± 2.29		22.00 ± 3.00		20.67 ± 1.52		17.45 ± 3.15		19.86 ± 4.01		16.78 ± 3.59		15.57 ± 3.78	
	0.959		0.314		0.186		0.002*		0.708		0.879		0.462	
	22.13 ± 2.70		20.03 ± 3.33		18.57 ± 2.67		25.00 ± 4.52		18.67 ± 3.12		17.00 ± 2.64		17.20 ± 1.92	
INNER INFERIOR	28.00 ± 2.10	0.455	24.00 ± 3.00	0.399	25.67 ± 0.57	0.565	23.41 ± 4.42	0.002*	26.86 ± 2.54	0.021	23.50 ± 4.79	0.919	21.57 ± 5.59	0.038

	28.16 ± 2.36		25.59 ± 2.97		24.57 ± 3.64		29.80 ± 2.16		23.89 ± 2.31		24.67 ± 0.57		25.60 ± 1.67
OUTER INFERIOR	26.46 ± 2.16	0.808	26.00 ± 2.64	0.312	24.67 ± 2.08	0.538	24.41 ± 4.59	0.156	27.71 ± 4.19	0.087	24.44 ± 4.09	0.136	22.14 ± 6.28
	26.61 ± 1.72		24.47 ± 2.33		24.05 ± 2.81		27.00 ± 1.73		24.22 ± 2.38		22.33 ± 1.52		24.20 ± 1.92
INNER SUPERIOR	26.92 ± 1.74	0.356	26.33 ± 2.309	0.085	23.00 ± 1.73	0.253	22.59 ± 3.37	0.009*	21.57 ± 4.72	0.447	21.50 ± 4.50	0.959	17.57 ± 4.92
	26.45 ± 1.71		23.34 ± 3.71		20.76 ± 3.17		27.20 ± 2.38		21.50 ± 2.39		21.33 ± 0.57		20.80 ± 2.49
OUTER SUPERIOR	25.83 ± 2.37	0.979	26.33 ± 2.30	0.129	23.00 ± 3.46	0.782	24.77 ± 2.81	0.179	21.71 ± 4.11	0.771	22.44 ± 3.60	0.919	20.14 ± 5.64
	25.74 ± 1.98		23.69 ± 3.17		21.70 ± 3.32		26.40 ± 1.14		22.88 ± 2.10		22.67 ± 1.15		24.40 ± 3.50
INNER NASAL	26.50 ± 2.16	0.199	24.00 ± 1.00	0.421	20.67 ± 4.04	0.455	21.32 ± 5.05	0.124	23.14 ± 2.19	0.873	21.56 ± 5.05	0.578	19.57 ± 5.31
	25.65 ± 2.61		21.64 ± 4.22		22.48 ± 2.82		25.00 ± 3.00		22.44 ± 3.74		21.00 ± 2.64		23.00 ± 1.58
OUTER NASAL	26.71 ± 2.38	0.154	26.33 ± 0.57	0.013*	24.00 ± 3.00	0.660	23.38 ± 5.50	0.647	25.29 ± 1.70	0.197	22.00 ± 6.29	0.880	22.00 ± 1.78
	26.00 ± 2.25		22.06 ± 3.11		23.48 ± 2.90		25.60 ± 2.07		24.00 ± 2.23		22.67 ± 3.21		23.40 ± 1.34
INNER TEMPORAL	26.92 ± 1.97	0.346	23.33 ± 2.51	0.666	23.33 ± 2.88	0.510	21.23 ± 5.05	0.167	23.43 ± 6.24	0.390	20.89 ± 5.31	0.085	18.71 ± 4.92
	25.68 ± 3.93		22.12 ± 3.96		22.19 ± 3.57		24.20 ± 2.95		21.78 ± 3.23		25.00 ± 3.60		21.80 ± 1.92
OUTER TEMPORAL	27.17 ± 1.40	0.452	24.67 ± 2.51	0.505	24.67 ± 2.88	0.510	24.41 ± 4.80	0.825	25.00 ± 4.50	0.068	25.00 ± 5.16	0.838	20.43 ± 5.28
	26.61 ± 2.90		23.36 ± 3.00		23.24 ± 2.87		24.40 ± 3.20		23.22 ± 2.33		25.67 ± 4.04		24.80 ± 1.78
TOTAL VOLUME	0.18 ± 0.01	0.187	0.17 ± 0.00	0.153	0.16 ± 0.01	0.399	0.12 ± 0.07	0.039	0.14 ± 0.06	0.721	0.08 ± 0.08	0.175	0.13 ± 0.03
	0.18 ± 0.01		0.16 ± 0.01		0.15 ± 0.01		0.18 ± 0.01		0.16 ± 0.01		0.16 ± 0.01		0.16 ± 0.01

Supplementary Table 2: Structural neuroretinal analysis using Optical Coherence Tomography (OCT). Comparison between the [non-bri] cohort (rats with ocular hypertension in the right eye) and the [BRI-LAP] cohort (rats with ocular hypertension in both eyes and brimonidine-Laponite formulation in the right eye) over 24 weeks. RNFL: Retinal nerve fibre layer; GCL: Ganglion

cell layer complex; thickness in microns (μm); mean \pm SD (SD: standard deviation), %Ch: percentage change; $p < 0.05$ statistical significance; * $p < 0.020$ statistical significance with Bonferroni correction for multiple comparisons. Cells are coloured grey when the right eye treated with Bri-Lap formulation in the [BRI-LAP] cohort showed thicker sectors and/or lower percentage loss than the untreated hypertensive right eye from the [non-bri] cohort. Upper cell: [non-bri] cohort. Lower cell: [BRI-LAP] cohort.