

Appendix

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Appendix Table S1.

Group Information																
Age Sex Genotype Diet n	Adolescent								Adult							
	Male				Female				Male				Female			
	<i>C57BL/6J</i>		<i>laxTB-GHSR</i>		<i>C57BL/6J</i>		<i>laxTB-GHSR</i>		<i>C57BL/6J</i>		<i>laxTB-GHSR</i>		<i>C57BL/6J</i>		<i>laxTB-GHSR</i>	
	Ad libitum	5:2 Diet	Ad libitum	5:2 Diet	Ad libitum	5:2 Diet	Ad libitum	5:2 Diet	Ad libitum	5:2 Diet	Ad libitum	5:2 Diet	Ad libitum	5:2 Diet	Ad libitum	5:2 Diet
	6	6	7	7	7	6	7	7	8	8	8	7	8	8	7	6
Body Weight (g)																
Mean ± SEM	27.47 ± 0.74	26.39 ± 0.63	24.88 ± 0.74	25.22 ± 0.58	22.05 ± 0.58	21.55 ± 0.40	21.30 ± 0.62	20.89 ± 0.50	35.63 ± 1.96	34.67 ± 1.46	31.79 ± 0.79	30.79 ± 0.47	28.18 ± 1.47	28.23 ± 1.25	24.49 ± 0.73	23.76 ± 0.81
Two Way ANOVA																
Genotype				P = 0.0110 (*)				P = 0.1902 (ns)				P = 0.0080 (**)				P = 0.0021 (**)
Diet				P = 0.5895 (ns)				P = 0.4007 (ns)				P = 0.4748 (ns)				P = 0.7742 (ns)
Genotype x Diet				P = 0.3045 (ns)				P = 0.9330 (ns)				P = 0.9376 (ns)				P = 0.7426 (ns)
Nose-Anus Length (mm)																
Mean ± SEM	90.00 ± 1.06	88.00 ± 1.44	89.86 ± 1.32	90.00 ± 1.00	87.43 ± 0.84	86.63 ± 1.08	84.57 ± 0.87	84.57 ± 1.46	97.00 ± 1.32	96.63 ± 1.05	94.88 ± 0.83	94.86 ± 0.99	90.38 ± 1.60	92.63 ± 1.21	89.71 ± 1.60	88.17 ± 0.83
Two Way ANOVA																
Genotype				P = 0.5157 (ns)				P = 0.0342 (*)				P = 0.0805 (ns)				P = 0.0810 (ns)
Diet				P = 0.5157 (ns)				P = 0.7170 (ns)				P = 0.8560 (ns)				P = 0.8050 (ns)
Genotype x Diet				P = 0.4540 (ns)				P = 0.7170 (ns)				P = 0.8689 (ns)				P = 0.1894 (ns)
Tibial Length (mm)																
Mean ± SEM	17.77 ± 0.13	17.91 ± 0.09	17.62 ± 0.08	17.80 ± 0.15	17.59 ± 0.11	17.65 ± 0.19	17.45 ± 0.11	17.51 ± 0.10	18.46 ± 0.10	18.57 ± 0.13	18.23 ± 0.07	18.24 ± 0.17	18.58 ± 0.11	18.53 ± 0.08	18.16 ± 0.14	18.11 ± 0.14
Two Way ANOVA																
Genotype				P = 0.2920 (ns)				P = 0.3279 (ns)				P = 0.0259 (*)				P = 0.0015 (**)
Diet				P = 0.2023 (ns)				P = 0.6588 (ns)				P = 0.6263 (ns)				P = 0.6593 (ns)
Genotype x Diet				P = 0.8488 (ns)				P = 0.9616 (ns)				P = 0.6526 (ns)				P = 0.9892 (ns)

Appendix Table S1. Summary of endpoint body weight and growth data.

Appendix Table S2.

Group Information				Adolescent												Adult											
Age	Sex	Genotype	Diet	Male				Female				Male				Female											
				C57BL/6J		Iax TB-GHSR		C57BL/6J		Iax TB-GHSR		C57BL/6J		Iax TB-GHSR		C57BL/6J		Iax TB-GHSR									
				Ad libitum	5/2 Diet	Ad libitum	5/2 Diet	Ad libitum	5/2 Diet	Ad libitum	5/2 Diet	Ad libitum	5/2 Diet	Ad libitum	5/2 Diet	Ad libitum	5/2 Diet	Ad libitum	5/2 Diet								
KID⁺ cells per DG section	Mean ± SEM			22.43 ± 2.07	25.26 ± 3.71	22.19 ± 1.77	23.02 ± 1.35	25.19 ± 3.14	22.73 ± 1.64	24.78 ± 1.85	20.36 ± 0.89	8.96 ± 1.51	10.50 ± 2.04	5.62 ± 0.45	5.90 ± 0.68	8.09 ± 2.04	10.42 ± 2.34	5.77 ± 0.31	8.83 ± 1.56								
	n (mice per group)			6	6	6	7	7	7	7	7	7	7	8	8	8	8	7	7								
	Twe Way ANOVA																										
	Genotype																										
	Diet																										
DCX⁺ cells per DG section	Mean ± SEM			138.05 ± 11.62	143.24 ± 18.51	151.77 ± 13.67	152.52 ± 9.04	157.94 ± 7.49	160.32 ± 5.56	149.60 ± 9.59	171.60 ± 3.93	24.11 ± 2.58	26.87 ± 5.49	19.57 ± 2.57	24.92 ± 2.17	27.31 ± 2.65	27.60 ± 2.71	22.40 ± 1.43	25.43 ± 4.35								
	n (mice per group)			6	6	5	7	7	7	7	7	7	8	8	8	8	8	7	8								
	Twe Way ANOVA																										
	Genotype																										
	Diet																										
BrdU⁺ cells per DG section	Mean ± SEM			15.11 ± 2.47	11.74 ± 1.76	12.37 ± 1.20	11.64 ± 1.74	9.81 ± 1.16	10.88 ± 1.88	9.89 ± 0.57	8.36 ± 0.23	6.45 ± 0.59	7.41 ± 0.82	5.94 ± 0.45	5.62 ± 0.42	7.42 ± 0.67	6.65 ± 0.37	6.45 ± 0.38	6.96 ± 0.61								
	n (mice per group)			6	6	6	7	7	7	7	7	7	8	8	8	8	9	7	7								
	Twe Way ANOVA																										
	Genotype																										
	Diet																										
BrdU⁺NeuN⁺ cells per DG section	Mean ± SEM			12.34 ± 2.98	9.47 ± 1.88	8.06 ± 1.79	8.08 ± 2.52	5.46 ± 0.76	7.09 ± 1.60	4.71 ± 0.23	5.94 ± 0.37	4.58 ± 0.73	5.58 ± 0.84	3.76 ± 0.46	3.37 ± 0.36	5.35 ± 0.80	5.41 ± 0.72	4.34 ± 0.43	5.03 ± 0.59								
	n (mice per group)			6	6	6	7	7	7	8	7	7	7	8	8	8	9	7	7								
	Twe Way ANOVA																										
	Genotype																										
	Diet																										
BrdU⁺Sox2⁺ cells per DG section	Mean ± SEM			0.42 ± 0.14	0.21 ± 0.07	0.68 ± 0.12	0.38 ± 0.16	0.20 ± 0.09	0.20 ± 0.07	0.61 ± 0.15	0.50 ± 0.11	0.16 ± 0.05	0.20 ± 0.09	0.17 ± 0.06	0.23 ± 0.08	0.34 ± 0.12	0.31 ± 0.13	0.14 ± 0.06	0.21 ± 0.08								
	n (mice per group)			6	6	6	7	7	7	8	7	7	7	8	8	7	8	7	6								
	Twe Way ANOVA																										
	Genotype																										
	Diet																										
BrdU⁺/S100β⁺ cells per DG section	Mean ± SEM			3.56 ± 0.58	3.44 ± 1.26	2.39 ± 0.48	2.00 ± 0.23	1.82 ± 0.34	1.96 ± 0.37	1.61 ± 0.17	1.07 ± 0.15	1.24 ± 0.30	1.55 ± 0.30	1.16 ± 0.27	1.20 ± 0.14	1.66 ± 0.29	1.40 ± 0.19	1.25 ± 0.22	1.10 ± 0.13								
	n (mice per group)			6	6	6	7	7	7	8	7	7	5	5	8	7	6	6	6								
	Twe Way ANOVA																										
	Genotype																										
	Diet																										
BrdU⁺/S100β⁺ cells per DG section	Mean ± SEM			3.56 ± 0.58	3.44 ± 1.26	2.39 ± 0.48	2.00 ± 0.23	1.82 ± 0.34	1.96 ± 0.37	1.61 ± 0.17	1.07 ± 0.15	1.24 ± 0.30	1.55 ± 0.30	1.16 ± 0.27	1.20 ± 0.14	1.66 ± 0.29	1.40 ± 0.19	1.25 ± 0.22	1.10 ± 0.13								
	n (mice per group)			6	6	6	7	7	7	8	7	7	5	5	8	7	6	6	6								
	Twe Way ANOVA																										
	Genotype																										
	Diet																										
BrdU⁺/S100β⁺ cells per DG section	Mean ± SEM			3.56 ± 0.58	3.44 ± 1.26	2.39 ± 0.48	2.00 ± 0.23	1.82 ± 0.34	1.96 ± 0.37	1.61 ± 0.17	1.07 ± 0.15	1.24 ± 0.30	1.55 ± 0.30	1.16 ± 0.27	1.20 ± 0.14	1.66 ± 0.29	1.40 ± 0.19	1.25 ± 0.22	1.10 ± 0.13								
	n (mice per group)			6	6	6	7	7	7	8	7	7	5	5	8	7	6	6	6								
	Twe Way ANOVA																										
	Genotype																										
	Diet																										
BrdU⁺/S100β⁺ cells per DG section	Mean ± SEM			3.56 ± 0.58	3.44 ± 1.26	2.39 ± 0.48	2.00 ± 0.23	1.82 ± 0.34	1.96 ± 0.37	1.61 ± 0.17	1.07 ± 0.15	1.24 ± 0.30	1.55 ± 0.30	1.16 ± 0.27	1.20 ± 0.14	1.66 ± 0.29	1.40 ± 0.19	1.25 ± 0.22	1.10 ± 0.13								
	n (mice per group)			6	6	6	7	7	7	8	7	7	5	5	8	7	6	6	6								
	Twe Way ANOVA																										
	Genotype																										
	Diet																										
BrdU⁺/S100β⁺ cells per DG section	Mean ± SEM			3.56 ± 0.58	3.44 ± 1.26	2.39 ± 0.48	2.00 ± 0.23	1.82 ± 0.34	1.96 ± 0.37	1.61 ± 0.17	1.07 ± 0.15	1.24 ± 0.30	1.55 ± 0.30	1.16 ± 0.27	1.20 ± 0.14	1.66 ± 0.29	1.40 ± 0.19	1.25 ± 0.22	1.10 ± 0.13								
	n (mice per group)			6	6	6	7	7	7	8	7	7	5	5	8	7	6	6	6								
	Twe Way ANOVA																										
	Genotype																										
	Diet																										
BrdU⁺/S100β⁺ cells per DG section	Mean ± SEM			3.56 ± 0.58	3.44 ± 1.26	2.39 ± 0.48	2.00 ± 0.23	1.82 ± 0.34	1.96 ± 0.37	1.61 ± 0.17	1.07 ± 0.15	1.24 ± 0.30	1.55 ± 0.30	1.16 ± 0.27	1.20 ± 0.14	1.66 ± 0.29	1.40 ± 0.19	1.25 ± 0.22	1.10 ± 0.13								
	n (mice per group)			6	6	6	7	7	7	8	7	7	5	5	8	7	6	6	6								
	Twe Way ANOVA																										
	Genotype																										
	Diet																										
BrdU⁺/S100β⁺ cells per DG section	Mean ± SEM			3.56 ± 0.58	3.44 ± 1.26	2.39 ± 0.48	2.00 ± 0.23	1.82 ± 0.34	1.96 ± 0.37	1.61 ± 0.17	1.07 ± 0.15	1.24 ± 0.30	1.55 ± 0.30	1.16 ± 0.27	1.20 ± 0.14	1.66 ± 0.29	1.40 ± 0.19	1.25 ± 0.22	1.10 ± 0.13								
	n (mice per group)			6	6	6	7	7	7	8	7	7	5	5	8	7	6	6	6								
	Twe Way ANOVA																										
	Genotype																										
	Diet																										
BrdU⁺/S100β⁺ cells per DG section	Mean ± SEM			3.56 ± 0.58	3.44 ± 1.26	2.39 ± 0.48	2.00 ± 0.23	1.82 ± 0.34	1.96 ± 0.37	1.61 ± 0.17	1.07 ± 0.15	1.24 ± 0.30	1.55 ± 0.30	1.16 ± 0.27	1.20 ± 0.14	1.66 ± 0.29	1.40 ± 0.19	1.25 ± 0.22	1.10 ± 0.13								
	n (mice per group)			6	6	6	7	7	7	8	7	7	5	5	8	7	6	6	6								
	Twe Way ANOVA																										
	Genotype																										
	Diet																										
BrdU⁺/S100β⁺ cells per DG section	Mean ± SEM			3.56 ± 0.58	3.44 ± 1.26	2.39 ± 0.48	2.00 ± 0.23	1.82 ± 0.34	1.96 ± 0.37	1.61 ± 0.17	1.07 ± 0.15	1.24 ± 0.30	1.55 ± 0.30	1.16 ± 0.27	1.20 ± 0.14	1.66 ± 0.29	1.40 ± 0.19	1.25 ± 0.22	1.10 ± 0.13								
	n (mice per group)			6	6	6	7	7	7	8	7	7	5	5	8	7	6	6	6								
	Twe Way ANOVA																										
	Genotype																										
	Diet																										
BrdU⁺/S100β⁺ cells per DG section	Mean ± SEM			3.56 ± 0.58	3.44 ± 1.26	2.39 ± 0.48	2.00 ± 0.23	1.82 ± 0.34	1.96 ± 0.37	1.61 ± 0.17	1.07 ± 0.15	1.24 ± 0.30	1.55 ± 0.30	1.16 ± 0.27	1.20 ± 0.14	1.66 ± 0.29	1.40 ± 0.19	1.25 ± 0.22	1.10 ± 0.13								
	n (mice per group)			6	6	6	7	7	7	8	7	7	5	5	8	7	6	6	6								
	Twe Way ANOVA																										
	Genotype																										
	Diet																										
BrdU⁺/S100β⁺ cells per DG section	Mean ± SEM			3.56 ± 0.58	3.44 ± 1.26	2.39 ± 0.48	2.00 ± 0.23	1.82 ± 0.34	1.96 ± 0.37	1.61 ± 0.17	1.07 ± 0.15	1.24 ± 0.30	1.55 ± 0.30	1.16 ± 0.27	1.20 ± 0.14	1.66 ± 0.29	1.40 ± 0.19	1.25 ± 0.22	1.10 ± 0.13								
	n (mice per group)			6	6	6	7	7	7	8	7	7	5	5	8	7	6	6	6								
	Twe Way ANOVA																										
	Genotype																										
	Diet																										
BrdU⁺/S100β⁺ cells per DG section	Mean ± SEM			3.56 ± 0.58	3.44 ± 1.26	2.39 ± 0.48	2.00 ± 0.23	1.82 ± 0.34	1.96 ± 0.37	1.61 ± 0.17	1.07 ± 0.15	1.24 ± 0.30	1.55 ± 0.30	1.16 ± 0.27	1.20 ± 0.14	1.66 ± 0.29	1.40 ± 0.19	1.25 ± 0.22	1.10 ± 0.13								
	n (mice per group)			6	6	6	7	7	7	8	7	7	5	5	8	7	6	6	6								
	Twe Way ANOVA																										
	Genotype																										
	Diet																										
BrdU⁺/S100β⁺ cells per DG section	Mean ± SEM			3.56 ± 0.58	3.44 ± 1.26	2.39 ± 0.48	2.00 ± 0.23	1.82 ± 0.34	1.96 ± 0.37	1.61 ± 0.17	1.07 ± 0.15	1.24 ± 0.30	1.55 ± 0.30	1.16 ± 0.27	1.20 ± 0.14	1.66 ± 0.29	1.40 ± 0.19	1.25 ± 0.22	1.10 ± 0.13								
	n (mice per group)			6	6	6	7	7	7	8	7	7	5	5	8	7	6	6	6								
	Twe Way ANOVA																										
	Genotype																										
	Diet																										
BrdU⁺/S100β⁺ cells per DG section	Mean ± SEM																										

Appendix Table S2. Summary of data for cellular markers of adult hippocampal neurogenesis.

Appendix Table S3.

Group Information																
Age	Adolescent								Adult							
Sex	Male				Female				Male				Female			
Genotype	C57BL/6J		IaxFB-GH5R		C57BL/6J		IaxFB-GH5R		C57BL/6J		IaxFB-GH5R		C57BL/6J		IaxFB-GH5R	
Diet	Ad libitum (n = 6)	5:2 Diet (n = 5)	Ad libitum (n = 7)	5:2 Diet (n = 7)	Ad libitum (n = 7)	5:2 Diet (n = 8)	Ad libitum (n = 7)	5:2 Diet (n = 7)	Ad libitum (n = 6)	5:2 Diet (n = 7)	Ad libitum (n = 6)	5:2 Diet (n = 7)	Ad libitum (n = 5)	5:2 Diet (n = 5)	Ad libitum (n = 6)	5:2 Diet (n = 6)
DCX ⁺ cells per DG section																
Proliferative (Mean ± SEM)	45.72 ± 2.28	43.19 ± 2.01	41.32 ± 3.51	43.95 ± 2.40	41.79 ± 1.99	41.68 ± 1.64	38.94 ± 2.41	43.54 ± 1.03	14.57 ± 1.20	17.17 ± 2.09	11.79 ± 1.38	15.71 ± 1.28	16.25 ± 1.31	17.40 ± 1.74	14.04 ± 1.20	15.57 ± 1.72
Intermediate (Mean ± SEM)	28.91 ± 1.21	27.45 ± 2.41	28.73 ± 2.38	28.83 ± 1.39	28.37 ± 1.57	28.14 ± 0.93	26.74 ± 1.52	33.72 ± 0.92	6.79 ± 1.05	6.67 ± 1.00	6.17 ± 0.88	7.43 ± 0.82	8.55 ± 1.06	8.49 ± 1.15	6.79 ± 0.32	7.07 ± 1.88
Post-Mitotic (Mean ± SEM)	64.21 ± 12.10	72.59 ± 13.87	61.72 ± 7.91	78.96 ± 8.38	66.77 ± 4.12	69.51 ± 4.44	83.22 ± 5.43	84.34 ± 2.67	2.77 ± 0.89	4.65 ± 1.83	1.60 ± 0.52	1.72 ± 0.60	2.51 ± 0.53	1.70 ± 0.28	1.58 ± 0.20	1.89 ± 0.84
RM Two-Way ANOVA																
Maturation Stage	P = 0.0027 (**)				P = <0.0001 (****)				P = <0.0001 (****)				P = <0.0001 (****)			
Diet	P = 0.8395 (ns)				P = 0.9641 (ns)				P = 0.0553 (ns)				P = 0.3890 (ns)			
Maturation Stage × Diet	P = 0.7093 (ns)				P = 0.8598 (ns)				P = 0.7440 (ns)				P = 0.1322 (ns)			
Subject	P = 0.2445 (ns)				P = 0.6222 (ns)				P = 0.0087 (**)				P = <0.0001 (****)			
% of total DCX ⁺ cells per DG section																
Proliferative (Mean ± SEM)	34.47 ± 3.92	31.53 ± 2.79	27.38 ± 0.41	29.37 ± 2.45	26.47 ± 0.32	26.12 ± 1.14	25.52 ± 0.19	25.38 ± 0.20	51.67 ± 4.18	60.73 ± 3.47	51.59 ± 2.77	63.89 ± 2.89	60.57 ± 2.45	63.23 ± 2.24	62.22 ± 1.01	64.72 ± 4.67
Intermediate (Mean ± SEM)	21.46 ± 1.89	19.59 ± 1.18	19.10 ± 0.47	19.07 ± 0.65	18.58 ± 0.33	18.21 ± 0.38	17.86 ± 0.22	18.98 ± 0.53	27.65 ± 1.80	28.38 ± 0.98	31.13 ± 0.94	29.95 ± 1.42	30.60 ± 1.01	30.70 ± 2.14	30.57 ± 1.23	29.47 ± 2.04
Post-Mitotic (Mean ± SEM)	44.07 ± 5.39	48.79 ± 3.85	53.52 ± 0.77	51.56 ± 3.22	54.95 ± 0.36	55.67 ± 1.41	55.62 ± 0.29	54.95 ± 0.61	10.48 ± 3.07	10.90 ± 2.08	9.94 ± 1.78	6.35 ± 1.79	8.63 ± 1.32	6.27 ± 0.98	7.20 ± 1.02	6.81 ± 2.21

Appendix Table S3. Summary of data for DCX⁺ cell maturation.

Appendix Table S4.

Group Information																	
Age Sex Genotype	Adolescent								Adult								
	Male				Female				Male				Female				
	CS7BL/6J		Aus-Tb-GHSR		CS7BL/6J		Aus-Tb-GHSR		CS7BL/6J		Aus-Tb-GHSR		CS7BL/6J		Aus-Tb-GHSR		
	Ad Sibulim (n = 6)	5.2 Diet (n = 6)	Ad Sibulim (n = 7)	5.2 Diet (n = 7)	Ad Sibulim (n = 8)	5.2 Diet (n = 8)	Ad Sibulim (n = 8)	5.2 Diet (n = 8)	Ad Sibulim (n = 8)	5.2 Diet (n = 8)	Ad Sibulim (n = 8)	5.2 Diet (n = 8)	Ad Sibulim (n = 8)	5.2 Diet (n = 8)	Ad Sibulim (n = 8)	5.2 Diet (n = 8)	
	CS7BL/6J		Aus-Tb-GHSR		CS7BL/6J		Aus-Tb-GHSR		CS7BL/6J		Aus-Tb-GHSR		CS7BL/6J		Aus-Tb-GHSR		
BrduU/NeuN cells % Dg straction																	
CaustD Dg (Mean ± SEM)	1362 ± 3.47	901 ± 1.88	929 ± 1.74	790 ± 2.47	579 ± 0.87	738 ± 2.08	481 ± 0.40	531 ± 0.56	450 ± 0.81	552 ± 0.77	363 ± 0.50	359 ± 0.57	564 ± 1.00	502 ± 0.81	486 ± 0.96	478 ± 0.45	
CaustD Dg (Mean ± SEM)	1046 ± 2.32	844 ± 1.98	787 ± 1.90	633 ± 0.96	513 ± 0.82	671 ± 1.08	465 ± 0.40	479 ± 0.41	469 ± 0.68	567 ± 0.95	369 ± 0.46	374 ± 0.37	510 ± 0.82	510 ± 0.82	422 ± 0.42	538 ± 0.77	
RMT Two Way ANOVA																	
Royal:Caustal axis	P = 0.113 (ns)		P = 0.068 (ns)		P = 0.3002 (ns)		P = 0.4597 (ns)		P = 0.5903 (ns)		P = 0.6784 (ns)		P = 0.6402 (ns)		P = 0.8470 (ns)		P = 0.8128 (ns)
Royal:Caustal axis x Diet	P = 0.4813 (ns)		P = 0.0617 (ns)		P = 0.3968 (ns)		P = 0.4605 (ns)		P = 0.4543 (ns)		P = 0.5202 (ns)		P = 0.4743 (ns)		P = 0.3470 (ns)		P = 0.3128 (ns)
Royal:Caustal axis x Diet	P = 0.1044 (ns)		P = 0.3892 (ns)		P = 0.5993 (ns)		P = 0.5700 (ns)		P = 0.9442 (ns)		P = 0.1188 (ns)		P = 0.3822 (ns)		P = 0.1287 (ns)		P = 0.1287 (ns)
Subject	P = 0.0004 (****)		P = 0.0001 (****)		P = 0.0009 (****)		P = 0.0712 (ns)		P = 0.0001 (****)		P = 0.0004 (****)		P = 0.0001 (****)		P = 0.0001 (****)		P = 0.0040 (****)

Appendix Table S4. Summary of data for BrdU⁺/NeuN⁺ cell counts in the rostral and caudal dentate gyrus (DG).

Appendix Table S5.

Group Information													
Age	Adolescent							Adult					
Sex	Male			Female				Male			Female		
Genotype	C57BL/6J		Iw TB-GH5R	C57BL/6J		Iw TB-GH5R		C57BL/6J		Iw TB-GH5R	C57BL/6J		Iw TB-GH5R
Diet	Ad libitum (n = 6)	5:2 Diet (n = 6)	Ad libitum (n = 7)	5:2 Diet (n = 7)	Ad libitum (n = 7)	5:2 Diet (n = 8)		Ad libitum (n = 7)	5:2 Diet (n = 8)	Ad libitum (n = 8)	5:2 Diet (n = 7)	Ad libitum (n = 9)	5:2 Diet (n = 6)
Rostral DG													
Suprapyramidal Blade (Mean ± SEM)	8.53 ± 2.74	6.35 ± 1.09	5.05 ± 1.48	5.54 ± 2.05	3.31 ± 0.54	5.67 ± 1.82	2.63 ± 0.20	3.24 ± 0.43	2.33 ± 0.48	3.10 ± 0.38	2.08 ± 0.28	1.91 ± 0.22	3.37 ± 0.54
Infrapyramidal Blade (Mean ± SEM)	5.10 ± 0.78	4.08 ± 0.82	3.09 ± 0.09	3.11 ± 0.81	2.70 ± 0.42	2.74 ± 0.09	2.43 ± 0.32	2.25 ± 0.10	2.32 ± 0.33	2.51 ± 0.35	1.57 ± 0.25	1.68 ± 0.19	2.71 ± 0.37
RM Two Way ANOVA													
OC blade													
Diet													
OC blade x Diet													
Subject													
Caudal DG													
Suprapyramidal Blade (Mean ± SEM)	6.49 ± 1.46	6.09 ± 1.47	4.74 ± 1.21	5.20 ± 1.77	3.13 ± 0.54	4.39 ± 0.80	2.76 ± 0.20	2.99 ± 0.25	2.54 ± 0.40	3.10 ± 0.47	2.30 ± 0.28	1.85 ± 0.16	2.82 ± 0.35
Infrapyramidal Blade (Mean ± SEM)	4.14 ± 0.88	3.95 ± 0.58	3.12 ± 0.71	3.28 ± 0.85	2.09 ± 0.31	2.64 ± 0.25	2.01 ± 0.23	2.16 ± 0.23	2.14 ± 0.31	2.61 ± 0.46	1.82 ± 0.21	1.50 ± 0.16	2.28 ± 0.31
RM Two Way ANOVA													
OC blade													
Diet													
OC blade x Diet													
Subject													
Rostral + Caudal DG													
Suprapyramidal Blade (Mean ± SEM)	7.70 ± 2.20	6.19 ± 1.05	4.91 ± 1.33	5.37 ± 1.91	3.22 ± 0.48	5.03 ± 1.28	2.89 ± 0.18	3.09 ± 0.26	2.43 ± 0.42	3.13 ± 0.43	2.19 ± 0.28	1.88 ± 0.18	3.11 ± 0.43
Infrapyramidal Blade (Mean ± SEM)	4.65 ± 0.76	3.94 ± 0.70	3.33 ± 0.67	3.17 ± 0.80	2.40 ± 0.31	2.71 ± 0.41	2.25 ± 0.13	2.21 ± 0.13	2.20 ± 0.31	2.59 ± 0.42	1.70 ± 0.22	1.59 ± 0.17	2.32 ± 0.37
RM Two Way ANOVA													
OC blade													
Diet													
OC blade x Diet													
Subject													

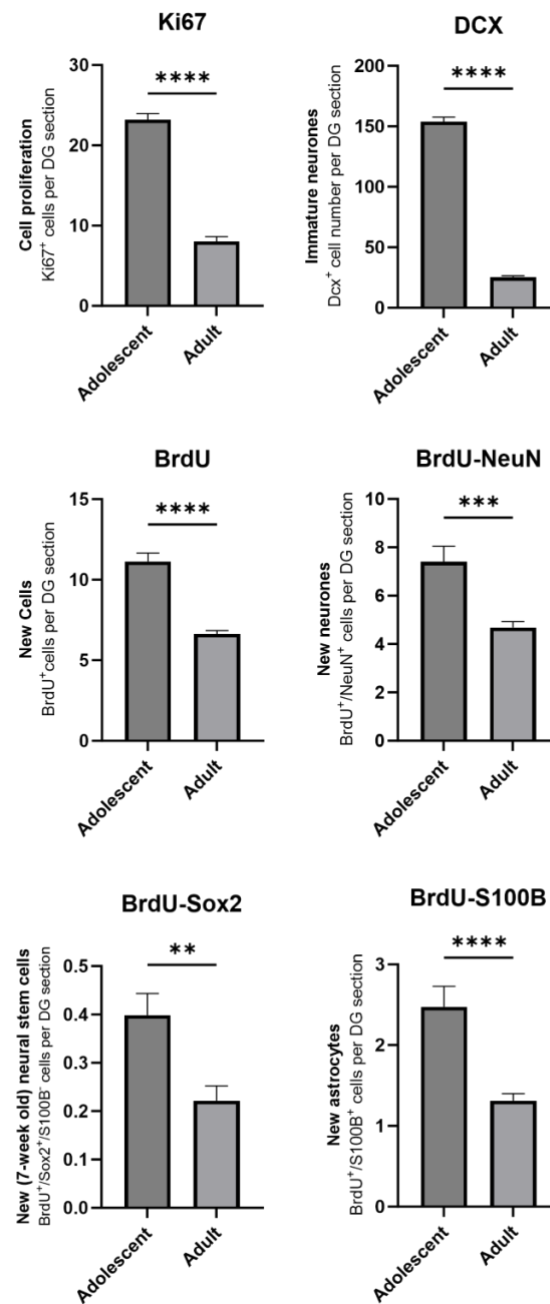
Appendix Table S5. Summary of data for BrdU⁺/NeuN⁺ cell counts in the suprapyramidal and infrapyramidal blades of the granule cell layer (GCL) of the DG.

Appendix Table S6.

Group Information		Adolescent								Adult							
Age		Male				Female				Male				Female			
Sex		CSTBL/NLJ				CSTBL/NLJ				CSTBL/NLJ				CSTBL/NLJ			
Genotype	Diet	<i>Act</i> (N=6)	<i>TB-GHSR</i> (N=6)	<i>S2Diet</i> (n=6)	<i>S2Diet</i> (n=6)	<i>Act</i> (N=7)	<i>TB-GHSR</i> (N=7)	<i>S2Diet</i> (n=7)	<i>S2Diet</i> (n=7)	<i>Act</i> (N=5)	<i>TB-GHSR</i> (N=5)	<i>S2Diet</i> (n=5)	<i>S2Diet</i> (n=5)	<i>Act</i> (N=7)	<i>TB-GHSR</i> (N=7)	<i>S2Diet</i> (n=7)	<i>S2Diet</i> (n=7)
Brdu⁺/Sox2⁺ cells per DG section																	
Rosol DG (mean ± SEM)		0.50 ± 0.20	0.19 ± 0.08	0.04 ± 0.12	0.23 ± 0.12	0.21 ± 0.07	0.29 ± 0.17	0.57 ± 0.19	0.61 ± 0.20	0.00 ± 0.00	0.20 ± 0.12	0.06 ± 0.04	0.14 ± 0.11	0.15 ± 0.07	0.46 ± 0.23	0.18 ± 0.09	0.17 ± 0.11
Caudal DG (mean ± SEM)		0.30 ± 0.12	0.27 ± 0.13	0.71 ± 0.15	0.50 ± 0.22	0.15 ± 0.12	0.21 ± 0.09	0.60 ± 0.16	0.57 ± 0.18	0.30 ± 0.09	0.20 ± 0.12	0.20 ± 0.10	0.39 ± 0.15	0.50 ± 0.20	0.17 ± 0.08	0.11 ± 0.05	0.29 ± 0.25
RM Tuv Way ANOVA																	
Rosol-Caudal sex			P = 0.675 (ns)				P = 0.528 (ns)		P = 0.63 (ns)		P = 0.141 (ns)		P = 0.0619 (ns)		P = 0.3205 (ns)		P = 0.8555 (ns)
Diet			P = 0.2448 (ns)				P = 0.1302 (ns)		P = 0.7113 (ns)		P = 0.0637 (ns)		P = 0.6404 (ns)		P = 0.3187 (ns)		P = 0.9501 (ns)
Rosol-Caudal sex x Diet			P = 0.3588 (ns)				P = 0.8322 (ns)		P = 0.6715 (ns)		P = 0.1411 (ns)		P = 0.8837 (ns)		P = 0.0591 (ns)		P = 0.5083 (ns)
Subject			P = 0.1821 (ns)				P = 0.0258 (*)		P = 0.0309 (*)		P = 0.7720 (ns)		P = 0.3612 (ns)		P = 0.2659 (ns)		P = 0.6711 (ns)

Appendix Table S6. Summary of data for BrdU⁺/Sox2⁺ cell counts in the rostral and caudal DG.

Appendix Figure S1.



Appendix Figure S1. Comparison of age effects of cellular markers of AHN. Data from all sexes, genotypes and diets were pooled for each age group under study. The effect of age on each marker was assessed using unpaired student t-tests. ** $P < 0.01$; *** $P < 0.001$; **** $P < 0.0001$;