

Supplementary Table 1. Allometric Equations

EQ	$EQ = w (brain) / Ew (brain)$
SNQ	$EN_{cx} = 2.39 \times 10^6 \times M_{body}^{23/50}$
ENQ	$EN_{cx} = 33.47 \times 10^6 \times Mcx^{28/50}$
SGQ	$EG_{cx} = 926.94 \times 10^3 \times M_{body}^{73/100}$
EGQ	$EG_{cx} = 60.90 \times 10^6 \times M_{cx}^{89/100}$
SNI	$SNI = En_{cx}$ (from SNQ) - estimated # of neurons
ENI	$ENI = En_{cx}$ (from ENQ) - estimated # of neurons

Supplementary Table 2. F-test, p-values, Group Differences

	F	Sig	Group Differences (Tukey's HSD)	
			W > L &	
SNQ	(2,25) 87.152	< 0.001	G	
ENQ	(2,25) 22.431	< 0.001	W > L > G	
			W > L &	
SGQ	(2,25) 43.936	< 0.001	G	
EGQ	(2,25) 3.287	0.054	W > G	
			L < W &	
SNI	(2,25) 32.259	< 0.001	G	
ENI	(2,25) 7.495	0.003	W > L	G > L (trend; p = .06)

Supplementary Table 3. Cellular Composition of Individual Cases							
	Total cells	Total Neurons	Total Non-neurons	Non-Neuron/ Neuron ratio	% Neurons	neuron density per mg	Non-neuron density per mg
Laboratory Norway Rat							
09-99 LM V1	2,605,469	886,968	1,718,501	1.94	34.04	42,642	82,620
09-99 RM V1	1,210,938	580,431	630,507	1.09	47.93	20,655	22,437
09-100 LM V1	2,777,344	1,117,956	1,659,388	1.48	40.25	48,187	71,525
09-100 RM V1	2,234,375	892,018	1,342,357	1.50	39.92	40,000	60,195
09-104 LM V1	2,550,781	1,002,753	1,548,028	1.54	39.31	40,110	61,921
09-104 RM V1	1,355,469	596,831	758,638	1.27	44.03	32,613	41,455
09-105 LM V1	1,195,313	550,443	644,870	1.17	46.05	36,942	43,279
09-105 RM V1	1,480,469	795,859	684,610	0.86	53.76	31,581	27,167
09-118 LM V1	2,781,250	1,174,530	1,606,720	1.37	42.23	40,782	55,788
09-118 RM V1	2,281,250	927,967	1,353,283	1.46	40.68	51,268	74,767
09-119 LM V1	1,500,000	647,117	852,883	1.32	43.14	42,573	56,110
09-119 RM V1	2,195,313	1,007,614	1,187,698	1.18	45.90	43,060	50,756
Mean	2,013,997	848,374	1,165,624	1.37	43.10	39,201	53,123
SEM	179,643	61,857	123,385	0.08	1.44	2,333	5,269
Wild-Caught Norway Rat							
09-110 LM V1	1,246,094	672,495	573,599	0.85	53.97	56,041	47,799
09-110 RM V1	2,347,656	1,040,387	1,307,269	1.26	44.32	45,631	57,336
09-124 LM V1	2,050,781	1,129,772	921,010	0.82	55.09	70,610	57,563
09-124 RM V1	1,890,625	903,884	986,741	1.09	47.81	52,551	57,368
09-125 LM V1	1,609,375	812,655	796,720	0.98	50.50	46,974	46,053
09-125 RM V1	1,347,656	679,219	668,438	0.98	50.40	55,673	54,789
09-128 LM V1	2,109,375	899,833	1,209,542	1.34	42.66	59,199	79,575
09-128 RM V1	3,144,531	1,438,918	1,705,614	1.19	45.76	67,239	79,701
09-129 LM V1	2,492,188	1,422,705	1,069,482	0.75	57.09	61,856	46,499
09-129 RM V1	2,632,813	1,206,269	1,426,544	1.18	45.82	54,830	64,842
Mean	2,087,109	1,020,614	1,066,496	1.04	49.34	57,060	59,547
SEM	187,695	87,726	111,468	0.06	1.54	2,528	3,887
Laboratory Nile Grass Rat							
Iowa 2 LM V1	851,563	436,742	414,821	0.95	0.51	50,200	47,680
Iowa 2 RM V1	1,001,953	555,558	446,395	0.80	0.55	48,309	38,816
Iowa 3 LM V1	769,531	401,994	367,537	0.91	0.52	36,215	33,111
Iowa 3 RM V1	808,594	424,155	384,439	0.91	0.52	38,212	34,634
Iowa 4 LM V1	703,125	354,364	348,761	0.98	0.50	38,517	37,908
Iowa 4 RM V1	708,984	357,230	351,755	0.98	0.50	35,369	34,827
Mean	807,292	421,674	385,618	0.92	0.52	41,137	37,829
SEM	45,386	30,127	15,684	0.03	0.01	2,623	2,156