

Supplementary Materials for

***In vivo* microscopic voxel-based morphometry with a brain template**

to characterize strain-specific structures in the mouse brain

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Table S1

Table S1. Gray matter volume differences according to brain region among four inbred mice strains
Significant differences in the gray matter volume of specific brain regions are shown, as identified via voxel-based morphometry ($p < 0.05$, family-wise error-corrected, >119 voxels).

C57Bl/6 > BALB/cBy					BALB/cBy > C57Bl/6						
Cluster size	Anatomical location	X	Y	Z	Z-scores	Cluster size	Anatomical location	X	Y	Z	Z-scores
2961	obolfactory bulb, right	-0.9	2.7	-3.7	5.8	340	lobules 3 of the cerebellar vermis, left	0.1	-6.0	-2.2	4.8
	obolfactory bulb, left	1.0	2.8	-3.9	4.7						
1051	subiculum transition area, right	-3.8	-4.6	-3.2	5.2						
235	anteromedial thalamic nucleus, right	-0.6	-1.1	-4.0	5.1						
551	primally auditory cortex, right	-4.2	-3.2	-2.3	5.0						
C57Bl/6 > C3H/He					C3H/He > C57Bl/6						
Cluster size	Anatomical location	X	Y	Z	Z-scores	Cluster size	Anatomical location	X	Y	Z	Z-scores
6039	olfactory bulb, right	-0.2	2.9	-3.7	7.4	1360	lobules 6 of the cerebellar vermis, right	-0.8	-8.0	-1.7	6.3
1519	primally visual cortex, right	-2.4	-5.2	-1.3	6.1		lobules 6 of the cerebellar vermis, left	0.7	-8.2	-1.8	6.1
1590	primally visual cortex, left	2.0	-5.2	-1.1	5.8	259.0	simple lobule, right	-2.2	-6.0	1.4	6.2
148	secondary somatosensory cortex, right	-4.5	-0.7	-3.3	5.2	2863	lobules 2 and 3 of the cerebellar vermis, left	0.3	-6.0	-2.3	5.7
						760	simple lobule, right	-2.6	-6.1	-2.9	5.5
						713	simple lobule, left	2.3	-6.8	-2.0	5.1
						365	crus 2 of the ansiform lobule, right	-2.7	-7.9	-3.1	5.1
C57Bl/6 > DBA/2					DBA/2 > C57Bl/6						
Cluster size	Anatomical location	X	Y	Z	Z-scores	Cluster size	Anatomical location	X	Y	Z	Z-scores
21004	secondary somatosensory cortex, right	-4.4	-0.8	-3.3	7.3						
	primally auditory cortex, right	-4.1	-2.9	-2.5	6.7		not detected				
	primally somatosensory cortex, forelimb region, right	-2.2	0.8	-2.0	6.6						
	primally somatosensory cortex, barrel field, right	-3.4	-1.1	-1.8	6.3						
	insular cortex, right	-2.8	1.5	-3.7	5.8						
2143	field CA1 of the hippocampus, left	1.5	-3.2	-1.6	6.9						
	dentate gyrus, left	2.9	-4.0	-2.8	5.9						
2503	field CA1 of the hippocampus, right	-1.8	-3.6	-2.0	6.9						
	dentate gyrus, right	-2.6	-4.0	-2.6	5.9						
	dorsal subiculum, right	-0.6	-2.5	-1.9	5.6						
18973	primally auditory cortex, left	4.6	-2.6	-2.1	6.8						
	primally somatosensory cortex, barrel field, left	3.4	-1.4	-1.4	6.6						
	secondary somatosensory area, left	4.6	-1.0	-3.3	6.0						
856	lateral orbital cortex, left	1.8	2.4	-2.5	6.0						
658	insular cortex, left	2.6	1.6	-3.9	5.9						
738	olfactory bulb	-0.2	3.0	-3.7	5.3						
BALB/cBy > C3H/He					C3H/He > BALB/cBy						
Cluster size	Anatomical location	X	Y	Z	Z-scores	Cluster size	Anatomical location	X	Y	Z	Z-scores
	not detected					1096	simple lobule, left	2.5	-5.7	-3.2	6.3
						5986	field CA3 of the hippocampus, right	-2.9	-3.0	-4.6	6.1
						506	accumbens nucleus, core, left	0.8	1.3	-3.8	5.4
						1055	anteromedial thalamic nucleus, right	-0.4	-1.1	-3.9	5.3
							anteromedial thalamic nucleus, left	0.2	-0.6	-3.9	5.1
						219	lobules 6 of the cerebellar vermis, right	-0.7	-8.0	-1.7	5.2
						1757	field CA3 of the hippocampus, left	2.3	-3.6	-4.5	5.1
						573	simple lobule, right	-2.2	-5.8	-3.1	4.8
						185	accumbens nucleus, core, right	-0.7	1.5	-3.7	4.7
BALB/cBy > DBA/2					DBA/2 > BALB/cBy						
Cluster size	Anatomical location	X	Y	Z	Z-scores	Cluster size	Anatomical location	X	Y	Z	Z-scores
1302	temporal association cortex, right	-4.8	-4.0	-3.1	6.3						
1475	field CA1 of the hippocampus, left	1.5	-3.3	-1.7	5.9		not detected				
2251	accumbens nucleus, core, right	-1.4	0.5	-4.3	5.6						
	ventral pallidum, right	-1.9	-0.1	-4.9	4.9						
776	field CA1 of the hippocampus, right	-1.8	-3.7	-1.9	5.3						
865	primally somatosensory cortex, barrel field, left	3.4	-1.4	-1.4	5.3						
1010	primally auditory cortex, left	4.6	-2.2	-2.1	5.3						
192	primally auditory cortex, right	-3.9	-2.5	-2.7	5.3						
980	insular cortex, right	-1.9	2.2	-2.6	5.2						
377	secondly auditory cortex, ventral area, right	-4.7	-2.0	-2.6	5.2						
404	insular cortex, Left	1.8	2.3	-2.7	5.2						
C3H/He > DBA/2					DBA/2 > C3H/He						
Cluster size	Anatomical location	X	Y	Z	Z-scores	Cluster size	Anatomical location	X	Y	Z	Z-scores
28989	field CA1 of the hippocampus, left	1.4	-3.2	-1.6	7.7	717	obolfactory bulb, left	0.2	2.6	-3.8	5.2
	dorsal subiculum, left	0.6	-2.6	-1.6	7.7		obolfactory bulb, right	-0.2	2.8	-3.0	4.6
	field CA1 of the hippocampus, right	-1.5	-3.4	-1.5	7.5						
22101	secondary somatosensory cortex, left	3.8	0.8	-3.2	7.4						
	primally somatosensory cortex, left	3.1	1.6	-2.8	7.1						
	insular cortex, left	2.7	2.1	-1.9	6.7						
6867	simple lobule, right	-2.5	-5.8	-2.4	7.4						
	crus 1 of the ansiform lobule, right	-2.4	-6.0	-1.5	7.0						
	lobules 6 of the cerebellar vermis, right	-0.8	-7.8	-1.7	6.6						
28716	primally somatosensory cortex, right	-3.4	1.2	-1.9	7.2						
	frontal cortex, area3, right	-2.5	2.1	-1.9	7.1						
	secondary somatosensory cortex, right	-3.8	0.8	-2.7	6.9						
670	lobules 2 and 3 of the cerebellar vermis, left	0.3	-5.9	-2.8	5.5						
250	primally auditory cortex, left	4.4	-3.7	-2.8	5.1						