

Table S4. Microglial molecular layer estimates for mature, exercised and sedentary rats raised in large and small litters. Experimental parameters, optical fractionator counting results and individual unilateral microglial numbers (N) and mean groups with the coefficient of error (CE).

Subjects	Section thickness ( $\mu\text{m}$ )	N	CE	tsf	No. of counting frames	$\Sigma Q^*$	Subjects	Section thickness ( $\mu\text{m}$ )	N	CE	tsf	No. of counting frames	$\Sigma Q^*$
<b>Mature Sedentary from Large Litters</b>													
<i>SM G39 EXP 96</i>	21.2 $\pm$ 1.55	30981	0.05	0.341 $\pm$ 0.031	241	426	<i>CAB G56 EXP 143</i>	19.1 $\pm$ 0.58	25352.66	0.04	0.36946 $\pm$ 0.0109	247	388
<i>VIDE G38 EXP 86</i>	19.7 $\pm$ 1.09	21664.67	0.05	0.363 $\pm$ 0.019	208	322	<i>DOR G56 EXP 142</i>	19.6 $\pm$ 0.89	26975.39	0.04	0.36086 $\pm$ 0.0158	223	399
<i>VIE G39 EXP 94</i>	22.5 $\pm$ 1.16	27878.07	0.04	0.316 $\pm$ 0.017	211	368	<i>PPE G56 EXP 144</i>	21.2 $\pm$ 0.94	28779.58	0.04	0.33401 $\pm$ 0.0159	215	399
<i>VSD G38 EXP 89</i>	19.6 $\pm$ 0.69	34254.02	0.03	0.360 $\pm$ 0.013	228	509	<i>VIDE G41 EXP 105</i>	24.4 $\pm$ 0.42	26054.13	0.04	0.28773 $\pm$ 0.0049	204	310
<i>VID G39 EXP 92</i>	20.3 $\pm$ 1.23	26981.75	0.04	0.342 $\pm$ 0.020	205	395	<i>VME G47 EXP 106</i>	21.9 $\pm$ 1.66	29130.15	0.04	0.32774 $\pm$ 0.0258	225	389
<b>Mean</b>	20.7 $\pm$ 0.54	<b>28351.9</b>	0.04				<b>Mean</b>	21.2 $\pm$ 0.94	<b>27258.4</b>	0.04			
<b>SD</b>		4705.53					<b>SD</b>		1656.78				
$CV^2 = (SD/Mean)^2$		0.028					$CV^2 = (SD/Mean)^2$		0.004				
$CE^2$		0.002					$CE^2$		0.002				
$CE^2/CV^2$		0.0703					$CE^2/CV^2$		0.5060				
$CVB^2$		0.026					$CVB^2$		0.002				
$CVB^2 (\% \text{ of } CV^2)$		93%					$CVB^2 (\% \text{ of } CV^2)$		49%				
<b>Mature Sedentary from Small Litters</b>													
<i>PAD G52 EXP 136</i>	16.0 $\pm$ 0.44	16082.51	0.045	0.441 $\pm$ 0.013	213	291	<i>DOR G51 EXP 126</i>	23.4 $\pm$ 1.01	21531.2	0.05	0.304 $\pm$ 0.014	236	268
<i>PPE G52 EXP 135</i>	14.1 $\pm$ 0.92	16272.66	0.051	0.506 $\pm$ 0.033	226	327	<i>CAB G32 EXP 124</i>	23.9 $\pm$ 0.28	20991.13	0.05	0.297 $\pm$ 0.004	234	255
<i>SM G32 EXP 148</i>	15.9 $\pm$ 0.19	15834.46	0.049	0.442 $\pm$ 0.005	201	292	<i>VID G37 EXP 70</i>	19.4 $\pm$ 1.43	21096.16	0.05	0.370 $\pm$ 0.031	224	320
<i>SM G52 EXP 134</i>	19.4 $\pm$ 0.98	24809.92	0.038	0.365 $\pm$ 0.018	268	373	<i>VMD EXP 52</i>	19.8 $\pm$ 0.77	17486.28	0.05	0.359 $\pm$ 0.014	224	254
<i>VSDE G37 EXP 71</i>	15.8 $\pm$ 0.92	18657.07	0.048	0.452 $\pm$ 0.026	216	340	<i>VME G36 EXP 67</i>	20.0 $\pm$ 1.49	23311.8	0.05	0.358 $\pm$ 0.023	217	344
<b>Mean</b>	16.2 $\pm$ 0.86	<b>18331.32</b>	0.046				<b>Mean</b>	21.3 $\pm$ 0.96	<b>20883.3</b>	0.05			
<b>S.D.</b>		3794.99					<b>S.D.</b>		2116.25				
$CV^2 = (D.P./Mean)^2$		0.043					$CV^2 = (D.P./Mean)^2$		0.010				
$CE^2$		0.002					$CE^2$		0.002				
$CE^2/CV^2$		0.0499					$CE^2/CV^2$		0.2387				
$CVB^2$		0.041					$CVB^2$		0.008				
$CVB^2 (\% \text{ of } CV^2)$		95%					$CVB^2 (\% \text{ of } CV^2)$		76%				

<sup>a</sup>All evaluations were performed using a 100X objective lens (Nikon, NA 1.3, DF = 0.19  $\mu\text{m}$ ). a(frame)-area of the optical disector counting frame = 60  $\times$  60  $\mu\text{m}^2$ ; A(x,y step), x and y step sizes = 90  $\times$  90; asf, area sampling fraction [a(frame)/A(x,y step)] = 0.44; tsf, thickness sampling fraction, calculated by the height of optical disector = 7  $\mu\text{m}$  divided by section thickness, h/section thickness; ssf, section sampling fraction = 1/6; number of sections = 5;  $\Sigma Q^*$ , counted microglial markers.