Supporting Information

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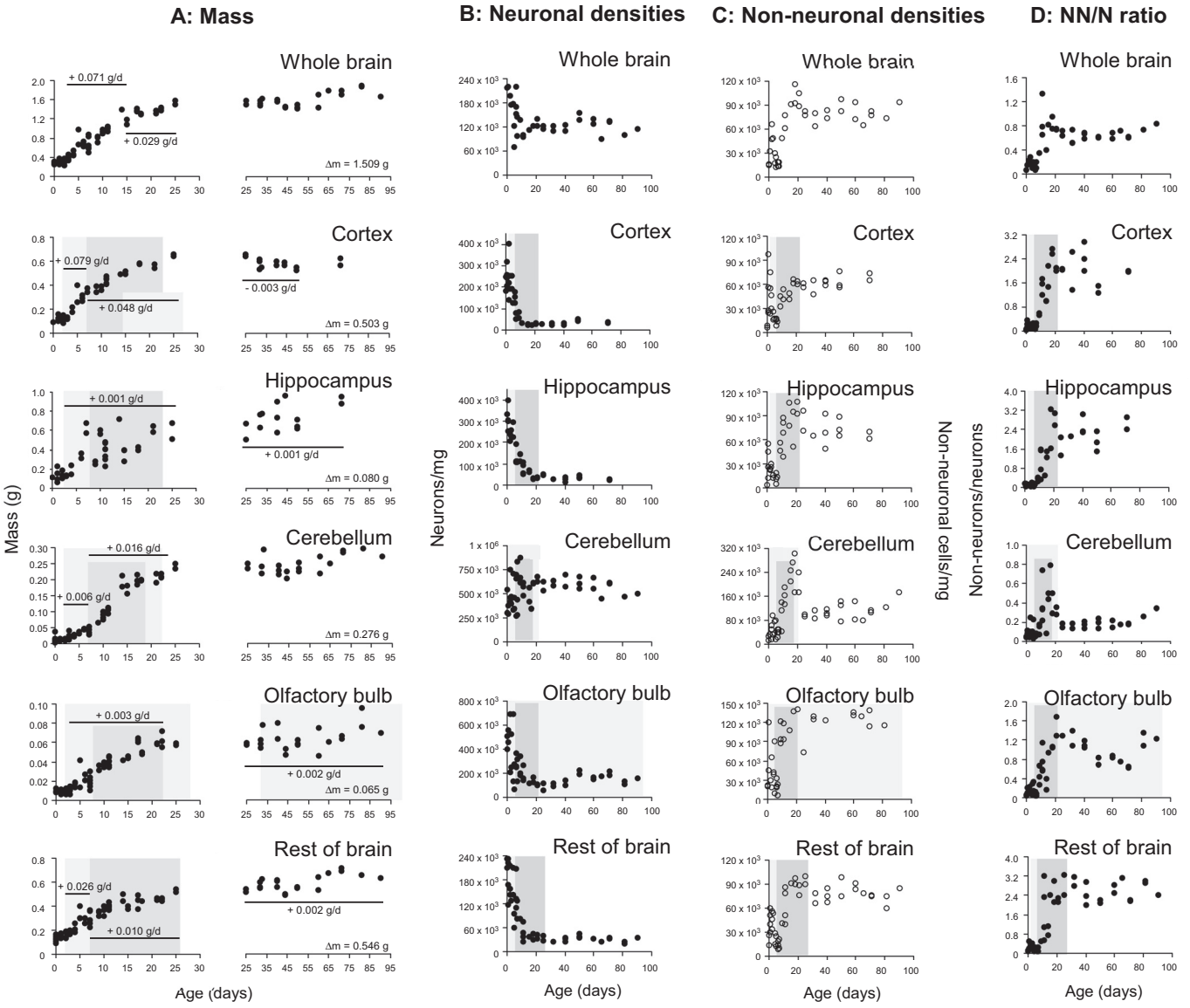

Fig. S1. Postnatal changes in the rat brain. (*A*) Postnatal changes in brain mass. Each filled circle represents the mass of the brain structures indicated or of the whole brain of 1 individual animal. The first postnatal month is shown on the left and the second and third postnatal months are shown on the right with the same Y scale. Periods of net addition of neuronal and non-neuronal cells in each structure are indicated, for reference, in light and dark gray shading, respectively. Total growth of each structure between birth and adulthood is indicated (Δm). No significant change in brain mass is found during the first 3 postnatal days. Thereafter, brain growth ensues at the rates indicated (linear regression, $P < 0,05$) until P25 and, in the hippocampus, olfactory bulb and rest of brain, continues during the second and third postnatal months. The cerebral cortex is the only structure examined to lose mass postnatally, between P25 and P50. (*B* and *C*) Postnatal changes in cell densities. Each circle represents the density of neurons (*B*, filled circles) or of non-neuronal cells (*C*, white circles) found in the brain structures indicated or in the whole brain of 1 individual animal. Periods of net addition of neuronal and non-neuronal cells in each structure are indicated, for reference, in light and dark gray shading, respectively. Neuronal cell densities decrease exponentially during the first 2 postnatal weeks in all structures other than the cerebellum, then remain stable thereafter, while non-neuronal cell densities decrease during the first postnatal week, increase over the second and third postnatal weeks, and remain stable thereafter. (*D*) Postnatal changes in the non-neuronal/neuronal ratio. Each circle represents the ratio between the number of non-neuronal and neuronal cells found in the brain structures indicated or in the whole brain of 1 individual animal. This ratio does not vary significantly during the first postnatal week, then increases during the second and third weeks, when net addition of non-neuronal cells occurs, in all structures except for the cerebellum. Periods of net addition of neuronal and non-neuronal cells in each structure are indicated, for reference, in light and dark gray shading, respectively.

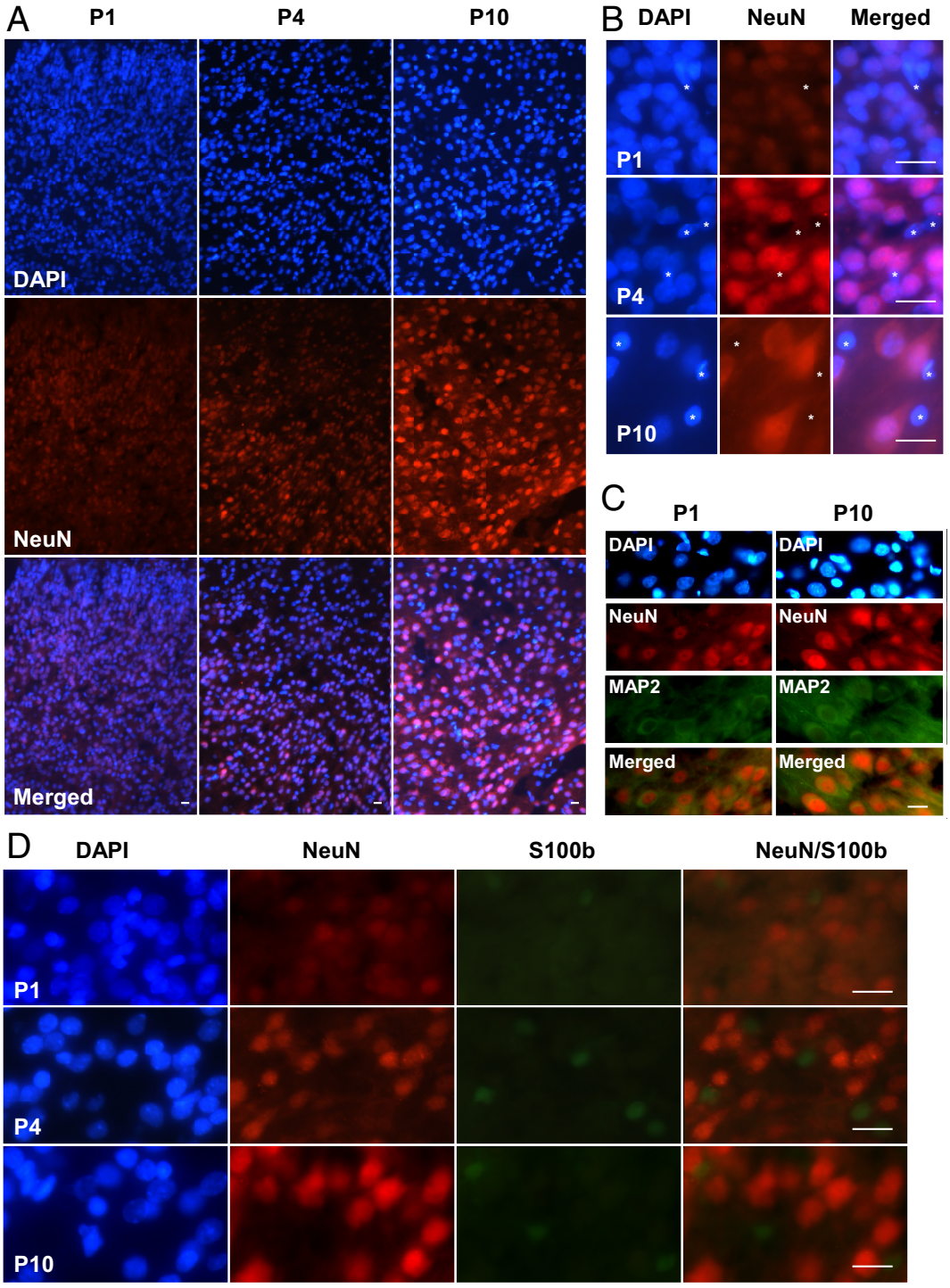

Fig. S2. NeuN labeling in frozen brain sections. (*A*) Photomicrographs of sections through the cerebral cortex at P1, P4, and P10 taken at the same magnification. Notice that the vast majority of cells are NeuN-positive and have large, round nuclei that increase in size and become more dispersed from P1 to P10. Merged images (bottom) show that most NeuN-negative nuclei have a different, smaller and more elongated morphology. (*B*) Larger magnification of the cerebral cortex at P1, P4, and P10 show that NeuN-positive nuclei appear to increase in size from P1 to P10; since the perikaryon is also labeled, most NeuN-positive cells exhibit, already at P4, a clear pyramidal shape and large nuclei, strikingly different from the neighboring NeuN-negative nuclei (asterisks). (*C*) Double-labeling for NeuN and MAP2 shows that all cells expressing MAP2 have NeuN-positive nuclei, and all such nuclei are surrounded by MAP2-positive fibers, at both P1 and P10. Notice the distinct morphology of the NeuN-positive nuclei. (*D*) Double-labeling for NeuN and the astrocyte marker S100b show that no cells express the 2 markers simultaneously. Notice that most NeuN-labeled nuclei are large and belong to pyramidal-shaped cells, whereas S100b-positive nuclei are small. (Scale bars, 2 μm.)

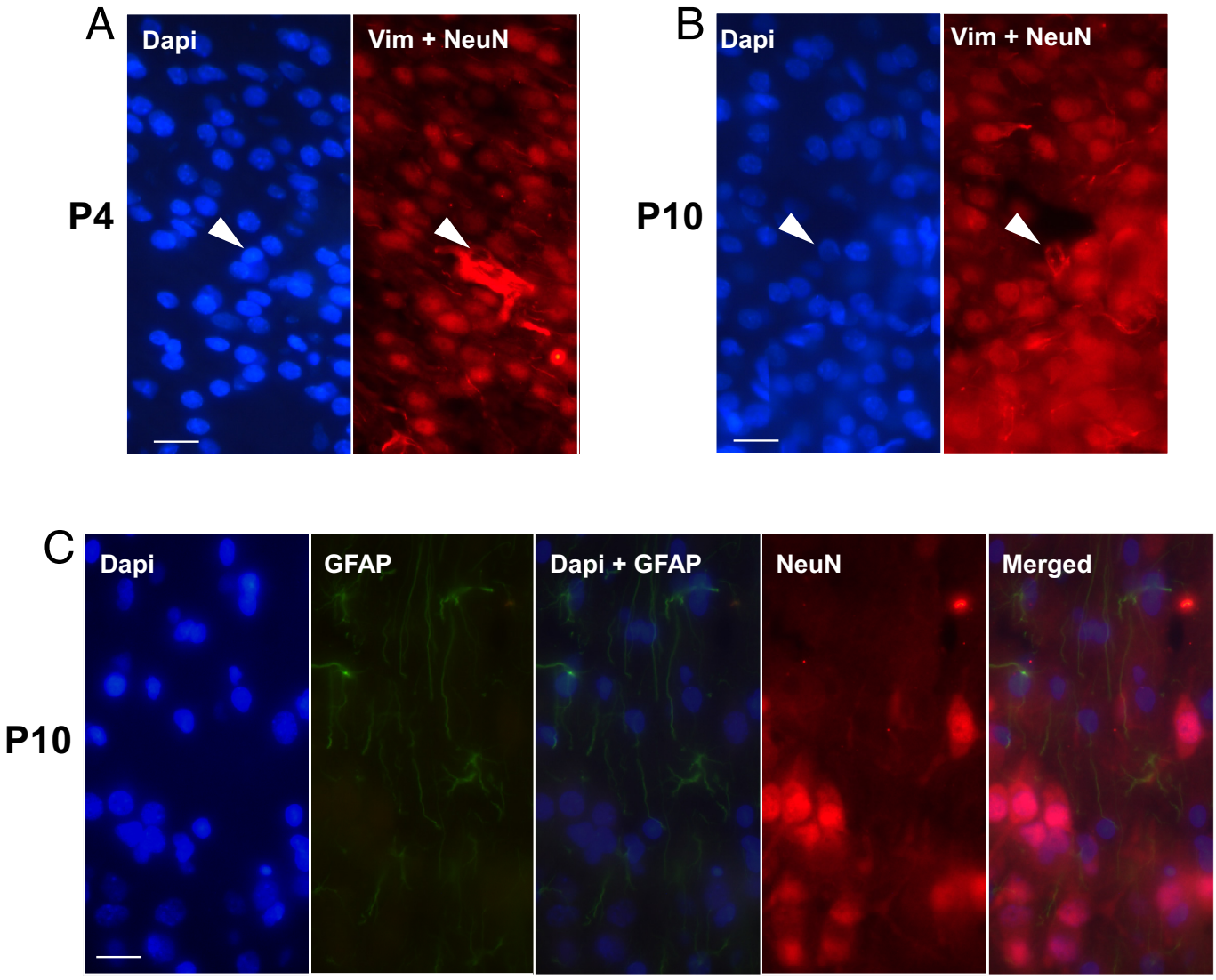

Fig. S3. NeuN-labeled neurons do not express vimentin or GFAP in situ. (*A* and *B*) Photomicrographs of the cerebral cortex at P4 (*A*) or P10 (*B*) double-labeled for NeuN and vimentin with the same secondary antibody (since both anti-NeuN and anti-vimentin are mouse monoclonal primary antibodies). Nuclei that are surrounded by a ring of staining have no label, and conversely, labeled nuclei lack a surrounding ring of staining, suggesting that NeuN-positive nuclei do not express this early glial marker. (*C*) photomicrographs of the cerebral cortex at P10 double-labeled for NeuN and GFAP show that NeuN-positive nuclei are not surrounded by GFAP staining. (Scale bars, 2 μm.)

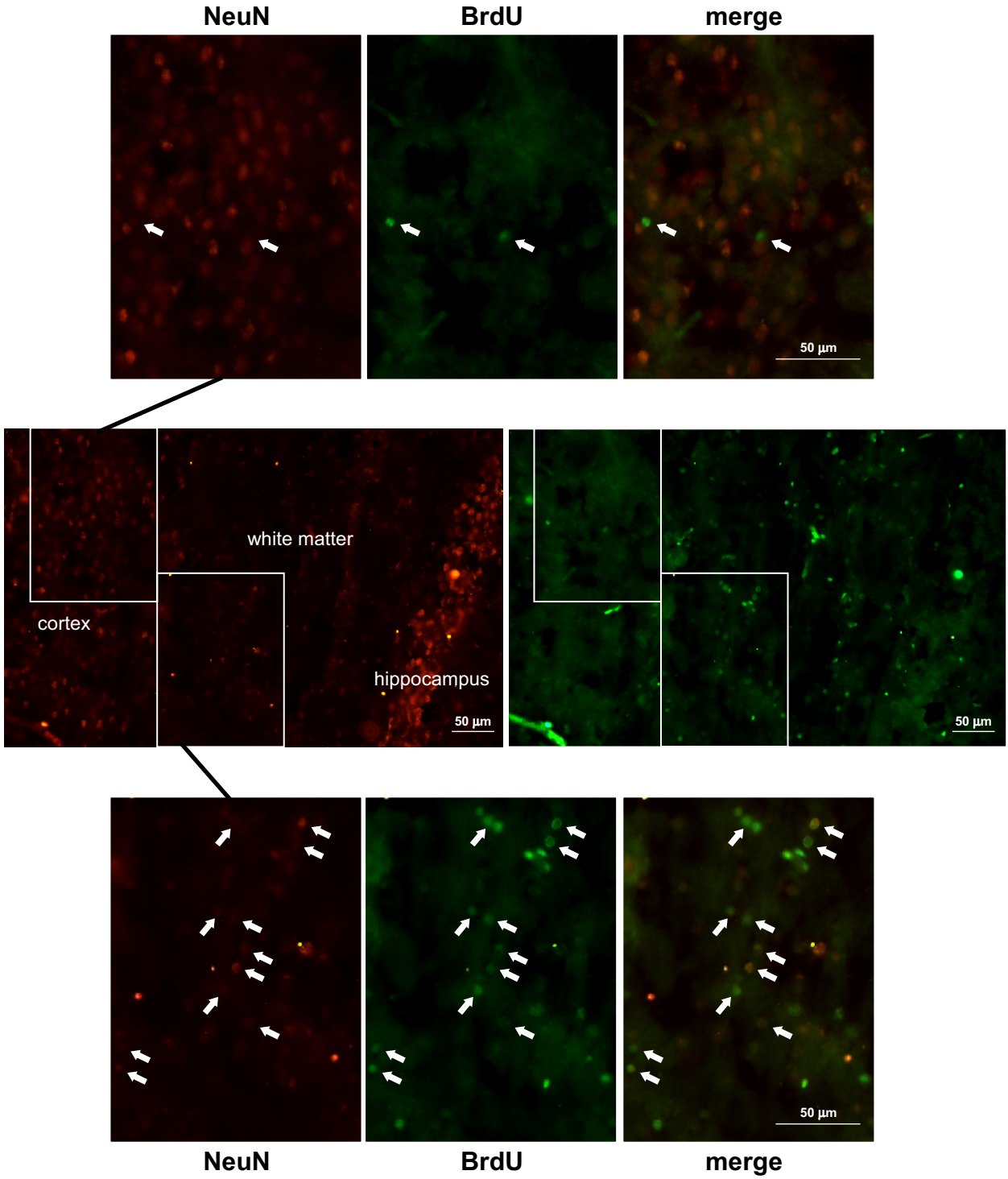

Fig. S4. Cells with BrdU-labeled nuclei at P5 after a single injection at P4 are NeuN-positive. (*Center*) Low-power photomicrographs of the cerebral cortex at P5 double-labeled for NeuN (*Left*) and BrdU (*Right*) shows BrdU-labeled nuclei in the white matter between the cerebral cortex and the hippocampus, some of which are weakly while others are strongly positive for NeuN. Insets are expanded, showing that the BrdU-labeled nuclei in the white matter are NeuN-positive (*Bottom*) and showing that only a minority of the NeuN-positive nuclei already established in the cerebral cortex are BrdU-labeled (*Top*).

Table S1. Gain in mass and in number of cells between birth and adulthood in the different structures of the rat brain

Mass	Cerebral cortex	Hippocampus	Cerebellum	Olfactory bulb	Rest of brain	Whole brain
P0, g	0.095 ± 0.001	0.012 ± 0.007	0.014 ± 0.011	0.010 ± 0.005	0.127 ± 0.025	0.278 ± 0.022
Adult, g	0.598 ± 0.040	0.092 ± 0.005	0.290 ± 0.013	0.075 ± 0.013	0.673 ± 0.033	1.787 ± 0.103
Variation	6.3×	7.7×	20.7×	7.5×	5.3×	6.4×
Net gain, g	0.503	0.080	0.276	0.065	0.546	1.509
No. neurons						
P0, 10^6	20.3 ± 4.5	2.7 ± 0.9	4.0 ± 0.5	3.8 ± 0.3	28.3 ± 4.7	61.4 ± 3.7
Adult, 10^6	20.8 ± 0.5	2.3 ± 0.4	155.4 ± 21.5	11.5 ± 1.6	20.1 ± 4.8	211.9 ± 25.6
Variation	None	None	38.8×	3.0×	0.7×	3.4×
Net gain	None	None	151.4 million	7.7 million	−8.2 million	150.5 million
No. non-neurons						
P0, 10^6	0.7 ± 0.2	0.3 ± 0.1	0.2 ± 0.0	0.2 ± 0.0	2.5 ± 1.1	4.1 ± 0.1
Adult, 10^6	41.4 ± 0.5	6.1 ± 0.2	36.7 ± 7.1	11.0 ± 2.7	49.8 ± 6.1	144.1 ± 8.6
Variation	57.4×	21.8×	193.2×	72.0×	19.0×	35.1×
Net gain	41 million	6 million	36 million	11 million	47 million	140 million

Values for each structure at P0 and in the adult are mean ± standard deviation. Numbers of neurons and non-neuronal cells are given in millions. Variation and net gain in mass or number of cells are given whenever the difference between P0 and adult values is significant ($P < 0.05$).

Table S2. Average mass and number of cells per structure and age group

Age	*n*	Body mass, g	1st brain mass, g	2nd brain mass, g	% change
P0	2	5.56 ± 0.90	0.274 ± 0.030	0.261 ± 0.014	−4.7
P1	5	7.38 ± 0.55	0.309 ± 0.041	0.309 ± 0.049	0.0
P2	4	8.09 ± 0.98	0.351 ± 0.042	0.334 ± 0.067	−4.8
P3	2	8.30 ± 1.46	0.378 ± 0.021	0.336 ± 0.018	−11.1
P4	2	11.73 ± 0.59	0.507 ± 0.061	0.488 ± 0.080	−3.7
P5	2	12.53 ± 0.66	0.526 ± 0.056	0.826 ± 0.216	57.0
P6	3	17.12 ± 1.19	0.691 ± 0.037	0.683 ± 0.047	−1.2
P7	2	16.20 ± 1.18	0.738 ± 0.018	0.858 ± 0.038	16.3
P9	3	16.56 ± 0.43	0.827 ± 0.027	0.785 ± 0.060	−5.4
P11	4	21.45 ± 0.39	1.043 ± 0.013	1.002 ± 0.046	−3.9
P15	2	20.35 ± 0.00	1.212 ± 0.067	1.136 ± 0.062	−6.3
P18	2	34.46 ± 1.57	1.357 ± 0.016	1.307 ± 0.009	−3.7
P21	2	39.10 ± 0.71	1.404 ± 0.036	1.342 ± 0.033	−4.4
P25	2	62.20 ± 2.26	1.547 ± 0.097	1.537 ± 0.060	−0.6
P32	2	82.20 ± 1.56	1.561 ± 0.022	1.496 ± 0.032	−4.2
P40	3	135.33 ± 1.53	1.614 ± 0.056	1.590 ± 0.032	−1.5
P50	3	162.67 ± 28.04	1.584 ± 0.091	1.452 ± 0.034	−8.3
P60	2	249.65 ± 18.60	1.571 ± 0.200	1.572 ± 0.200	0.0
P65	1	247.00	1.788	1.792	0.2
P71	2	193.00 ± 0.00	1.809 ± 0.073	1.748 ± 0.066	−3.4
P81	2	298.00 ± 2.83	1.888 ± 0.004	1.888 ± 0.004	0.0
P90	1	302.43	n.a.	1.664	n.a.
Total	53				

Values are mean ± standard deviation. 1st brain mass, total mass of the freshly perfused brain; 2nd brain mass, sum of the masses of the individual, dissected brain structures at the time of fractionation (between 2 weeks and 2 months after perfusion); % change, 100× (1st brain mass–2nd brain mass)/1st brain mass. n.a., not applicable.

Table S2 continued. Cerebral cortex

Age	*n*	Mass, g	Cells, millions	Neurons, millions	Non-neurons, millions	% NeuN+
P0	2	0.095 ± 0.001	21.07 ± 4.34	20.34 ± 4.54	0.73 ± 0.20	96.4 ± 1.7
P1	5	0.120 ± 0.023	35.45 ± 1.61	30.15 ± 2.44	5.30 ± 3.06	85.2 ± 8.1
P2	4	0.128 ± 0.030	37.65 ± 9.07	29.10 ± 7.11	5.98 ± 2.25	83.3 ± 2.9
P3	2	0.125 ± 0.011	32.64 ± 0.86	27.84 ± 2.78	4.81 ± 1.91	85.2 ± 6.3
P4	2	0.196 ± 0.032	46.70 ± 1.74	42.72 ± 1.10	3.98 ± 0.64	91.5 ± 1.1
P5	2	0.328 ± 0.098	37.43	32.93	4.50	83.5 ± 6.4
P6	3	0.291 ± 0.026	48.26 ± 6.74	44.15 ± 5.89	4.11 ± 1.65	91.6 ± 3.1
P7	2	0.358 ± 0.023	28.47 ± 5.78	23.44 ± 6.04	5.03 ± 0.26	81.9 ± 4.6
P9	2	0.368 ± 0.032	37.28 ± 6.27	25.20 ± 5.49	14.09 ± 1.90	64.0 ± 1.9
P11	4	0.439 ± 0.035	39.85 ± 8.95	14.35 ± 0.57	21.48 ± 4.42	40.4 ± 4.7
P15	2	0.502 ± 0.016	35.54 ± 1.62	12.73 ± 1.66	22.81 ± 3.28	36.0 ± 6.3
P18	2	0.579 ± 0.011	50.88 ± 1.53	13.97 ± 0.01	36.92 ± 1.51	27.5 ± 0.8
P21	2	0.560 ± 0.025	51.54 ± 0.12	16.86 ± 0.28	34.68 ± 0.40	32.7 ± 0.6
P25	2	0.649 ± 0.016	56.57 ± 2.16	18.55 ± 0.52	38.02 ± 1.64	32.8 ± 0.3
P32	2	0.568 ± 0.050	49.28 ± 7.47	16.82 ± 2.53	32.46 ± 10.00	34.9 ± 10.4
P40	3	0.579 ± 0.021	51.16 ± 3.90	15.11 ± 3.20	36.05 ± 0.86	29.3 ± 4.0
P50	3	0.534 ± 0.014	58.95 ± 6.55	25.07 ± 1.58	33.87 ± 5.15	42.7 ± 2.4
P60	0	n.a.	n.a.	n.a.	n.a.	n.a.
P65	0	n.a.	n.a.	n.a.	n.a.	n.a.
P71	2	0.598 ± 0.040	62.16 ± 1.02	20.80 ± 0.55	41.36 ± 0.47	33.5 ± 0.3
P81	0	n.a.	n.a.	n.a.	n.a.	n.a.
P90	0	n.a.	n.a.	n.a.	n.a.	n.a.
Total	46					

Values are mean ± standard deviation. % NeuN+, percentage of NeuN-positive nuclei relative to all nuclei in the structure. n.a., not applicable.

Table S2 continued. Hippocampus

Age	*n*	Mass, g	Cells, millions	Neurons, millions	Non-neurons, millions	% NeuN+
P0	1	0.011	3.72	3.68	0.01	92.8 ± 8.7
P1	5	0.012 ± 0.007	3.32 ± 1.10	2.75 ± 0.95	0.34 ± 0.28	90.3 ± 4.9
P2	3	0.015 ± 0.004	4.23 ± 1.51	3.31 ± 1.04	0.30 ± 0.05	91.4 ± 1.6
P3	2	0.013 ± 0.001	3.52 ± 0.06	3.16 ± 0.06	0.36 ± 0.01	89.6 ± 0.1
P4	2	0.020 ± 0.006	5.16 ± 0.71	4.88 ± 0.66	0.28 ± 0.05	94.7 ± 0.3
P5	2	n.a.	7.70 ± 0.33	6.53 ± 0.01	1.17 ± 0.32	84.9 ± 3.6
P6	3	0.033 ± 0.003	4.87 ± 1.15	4.48 ± 1.35	0.39 ± 0.20	91.2 ± 5.7
P7	2	0.063 ± 0.008	7.67 ± 0.66	6.80 ± 0.54	0.87 ± 0.12	88.7 ± 0.6
P9	2	0.027 ± 0.002	4.15 ± 1.39	3.04 ± 0.92	1.11 ± 0.48	73.9 ± 4.4
P11	4	0.040 ± 0.009	5.80 ± 1.55	3.04 ± 1.21	2.77 ± 1.12	52.2 ± 16.8
P15	2	0.034 ± 0.008	5.52 ± 2.26	2.29 ± 0.78	3.23 ± 1.48	42.2 ± 3.1
P18	2	0.042 ± 0.002	4.33 ± 1.44	1.26 ± 0.01	3.07 ± 1.44	30.8 ± 10.4
P21	2	0.061 ± 0.005	8.35 ± 1.32	2.17 ± 0.14	6.18 ± 1.18	26.2 ± 2.5
P25	2	0.060 ± 0.012	7.87 ± 0.81	2.99 ± 0.87	4.87 ± 0.06	37.7 ± 7.2
P32	2	0.077 (n = 1)	6.49 ± 1.15	1.73 ± 0.85	4.76 ± 0.30	25.9 ± 8.5
P40	3	0.074 ± 0.017	7.50 ± 3.26	2.20 ± 1.11	5.30 ± 2.16	28.4 ± 3.3
P50	3	0.067 ± 0.005	7.70 ± 1.28	2.69 ± 0.67	5.01 ± 0.84	34.8 ± 4.9
P60	0	n.a.	n.a.	n.a.	n.a.	n.a.
P65	0	n.a.	n.a.	n.a.	n.a.	n.a.
P71	2	0.092 ± 0.005	8.38 ± 0.63	2.31 ± 0.38	6.07 ± 0.24	27.4 ± 2.5
P81	0	n.a.	n.a.	n.a.	n.a.	n.a.
P90	0	n.a.	n.a.	n.a.	n.a.	n.a.
Total	41					

Values are mean ± standard deviation. % NeuN+, percentage of NeuN-positive nuclei relative to all nuclei in the structure. n.a., not applicable.

Table S2 continued. Cerebellum

Age	*N*	Mass, g	Cells, millions	Neurons, millions	Non-neurons, millions	% NeuN+
P0	2	0.010 ± 0.003	4.16 ± 0.56	3.97 ± 0.53	0.19 ± 0.04	95.4 ± 0.3
P1	5	0.013 ± 0.004	5.42 ± 1.00	5.72 ± 1.05	0.56 ± 0.01	90.9 ± 1.6
P2	4	0.013 ± 0.004	7.26 ± 0.88	6.53 ± 0.72	0.51 ± 0.26	92.9 ± 1.6
P3	2	0.014 ± 0.002	6.73 ± 1.14	5.88 ± 1.61	0.84 ± 0.46	86.7 ± 9.2
P4	2	0.026 ± 0.005	14.01 ± 4.55	12.66 ± 4.12	1.35 ± 0.43	90.3 ± 0.1
P5	0	0.034 ± 0.004	15.24 ± 2.85	13.72 ± 4.15	1.51 ± 1.30	89.1 ± 10.6
P6	3	0.046 ± 0.001	26.40 ± 11.08	24.70 ± 10.55	1.71 ± 0.62	93.2 ± 1.4
P7	2	0.048 ± 0.007	31.41 ± 8.89	29.37 ± 8.84	2.07 ± 0.01	93.2 ± 1.8
P9	3	0.066 ± 0.001	53.60 ± 11.55	47.08 ± 8.72	6.52 ± 3.29	88.3 ± 4.5
P11	4	0.106 ± 0.009	71.78 ± 15.54	61.14 ± 7.62	17.86 ± 3.01	77.3 ± 4.2
P15	2	0.169 ± 0.017	120.03 ± 9.68	81.80 ± 8.96	38.23 ± 0.71	68.1 ± 2.0
P18	2	0.199 ± 0.001	168.91 ± 19.82	121.31 ± 1.40	47.60 ± 18.42	72.3 ± 7.7
P21	2	0.205 ± 0.019	176.56 ± 33.70	133.73 ± 20.28	42.83 ± 13.42	76.0 ± 3.0
P25	2	0.060 ± 0.012	162.42 ± 7.48	138.97 ± 9.88	23.45 ± 2.40	85.5 ± 2.1
P32	2	0.220 ± 0.000	156.52 ± 3.21	134.65 ± 7.42	21.87 ± 4.21	86.0 ± 3.0
P40	3	0.230 ± 0.015	165.92 ± 7.19	141.23 ± 10.03	24.68 ± 3.06	85.1 ± 2.4
P50	3	0.238 ± 0.014	172.33 ± 14.22	144.97 ± 10.71	27.36 ± 7.00	84.2 ± 3.5
P60	2	0.246 ± 0.039	173.75 ± 2.87	147.03 ± 3.34	26.72 ± 6.22	84.7 ± 3.3
P65	1	0.250	131.01	110.97	20.04	84.7
P71	2	0.287 ± 0.004	205.55 ± 4.31	173.82 ± 4.75	31.72 ± 0.44	84.6 ± 0.5
P81	2	0.302 ± 0.006	175.68	138.96	36.72	79.1
P90	1	0.272	181.82	135.09	46.73	74.3
Total	53					

Values are mean ± standard deviation. % NeuN+, percentage of NeuN-positive nuclei relative to all nuclei in the structure.

Table S2 continued. Olfactory bulb

Age	*n*	Mass, g	Cells, millions	Neurons, millions	Non-neurons, millions	% NeuN+
P0	2	0.009 ± 0.001	4.02 ± 0.27	3.84 ± 0.29	0.18 ± 0.02	95.6 ± 0.9
P1	5	0.008 ± 0.002	4.26 ± 1.47	5.04 ± 0.01	0.79 ± 0.41	86.6 ± 6.2
P2	4	0.009 ± 0.003	5.59 ± 2.74	3.45 ± 1.02	0.68 ± 0.40	84.4 ± 4.4
P3	2	0.008 ± 0.003	3.09 ± 0.62	2.80 ± 0.47	0.29 ± 0.15	91.0 ± 2.9
P4	2	0.016 ± 0.003	6.74 ± 5.07	6.09 ± 5.17	0.65 ± 0.10	85.8 ± 12.1
P5	2	0.028 ± 0.020	4.20 ± 1.36	3.36 ± 0.74	0.84 ± 0.63	81.5 ± 9.0
P6	3	0.025 ± 0.003	7.72 ± 0.41	7.11 ± 0.51	0.61 ± 0.26	92.1 ± 3.3
P7	2	0.027 ± 0.004	6.20 ± 2.78	5.81 ± 2.51	0.38 ± 0.27	94.3 ± 1.8
P9	3	0.033 ± 0.003	11.05 ± 2.20	7.79 ± 2.59	3.26 ± 0.45	69.3 ± 9.5
P11	4	0.037 ± 0.005	11.90 ± 4.69	6.98 ± 3.39	4.92 ± 1.57	57.7 ± 8.0
P15	2	0.045 ± 0.001	15.02 ± 7.33	5.08 ($n = 1$)	4.75 ($n = 1$)	51.6 ($n = 1$)
P18	2	0.049 ± 0.001	14.75 ± 2.01	7.18 ± 1.04	7.57 ± 0.98	48.6 ± 0.4
P21	2	0.059 ± 0.001	15.29 ± 0.79	6.15 ± 0.37	9.14 ± 1.16	40.3 ± 4.5
P25	2	0.058 ± 0.001	11.77 ± 6.11	5.13 ± 2.68	6.64 ± 3.43	43.6 ± 0.1
P32	2	0.060 ± 0.004	14.06 ± 2.28	6.34 ± 1.62	7.71 ± 0.66	44.8 ± 4.3
P40	2	0.072 ± 0.011	18.07 ± 1.04	8.59 ± 0.49	9.48 ± 0.72	47.5 ± 1.8
P50	3	0.059 ± 0.003	21.31 ± 1.12	12.49 ± 0.50	9.43 ± 1.02	57.0 ± 3.6
P60	2	0.060 ± 0.021	17.68 ± 6.80	9.54 ± 3.81	8.14 ± 2.99	53.8 ± 0.8
P65	1	0.060	18.25	10.48	7.77	57.4
P71	2	0.066 ± 0.002	21.33 ± 2.37	13.06 ± 1.42	8.28 ± 0.95	61.2 ± 0.1
P81	2	0.086 ± 0.014	22.81 ± 1.96	10.31 ± 0.01	12.49 ± 1.97	45.4 ± 4.0
P90	1	0.070	24.17	10.80	13.37	44.7
Total	52					

Values are mean ± standard deviation. % NeuN+, percentage of NeuN-positive nuclei relative to all nuclei in the structure.

Table S2 continued. Remaining areas

Age	*n*	Mass, g	Cells, millions	Neurons, millions	Non-neurons, millions	% NeuN+
P0	2	0.128 ± 0.004	30.66 ± 2.39	28.14 ± 1.33	2.51 ± 1.06	91.9 ± 2.8
P1	5	0.155 ± 0.017	35.59 ± 3.74	28.35 ± 6.08	7.01 ± 2.00	79.4 ± 8.9
P2	4	0.171 ± 0.028	37.90 ± 5.62	27.83 ± 1.08	7.39 ± 1.00	79.1 ± 1.6
P3	2	0.176 ± 0.003	35.68 ± 4.90	22.60 (n = 1)	9.62 (n = 1)	70.2 (n = 1)
P4	2	0.231 ± 0.034	44.88 ± 6.54	40.04 ± 4.91	4.84 ± 1.63	89.4 ± 2.1
P5	2	0.354 ± 0.070	32.60 ± 5.39	26.30 ± 3.51	6.30 ± 1.88	80.9 ± 2.6
P6	3	0.289 ± 0.023	46.29 ± 11.09	42.33 ± 10.71	3.97 ± 1.55	91.3 ± 3.3
P7	2	0.363 ± 0.004	43.87 ± 8.40	38.13 ± 11.49	5.74 ± 3.09	86.0 ± 9.7
P9	3	0.342 ± 0.024	41.41 ± 3.45	25.97 (n = 1)	13.17 (n = 1)	66.3 (n = 1)
P11	4	0.393 ± 0.011	43.06 ± 4.22	18.06 ± 8.89	25.01 ± 8.07	41.6 ± 18.6
P15	2	0.386 ± 0.018	43.81 ± 6.43	14.22 (n = 1)	34.13 (n = 1)	29.4 (n = 1)
P18	2	0.439 ± 0.001	57.71 ± 6.79	16.58 ± 4.79	41.13 ± 2.18	28.4 ± 4.9
P21	2	0.458 ± 0.016	54.97 ± 5.06	17.20 ± 2.23	37.77 ± 2.83	31.2 ± 1.2
P25	2	0.528 ± 0.018	68.64 ± 10.81	18.29 ± 5.59	50.35 ± 5.22	26.3 ± 4.0
P32	2	0.553 ± 0.010	53.66 ± 6.05	13.50 ± 0.59	40.16 ± 5.47	25.3 ± 1.8
P40	3	0.595 ± 0.031	63.89 ± 9.22	18.90 ± 4.10	45.00 ± 6.15	29.4 ± 3.9
P50	3	0.554 ± 0.007	67.69 ± 10.95	21.64 ± 2.91	46.05 ± 8.05	32.1 ± 0.8
P60	2	0.588 ± 0.081	70.42 ± 6.95	19.32 ± 3.05	51.10 ± 3.90	27.4 ± 1.6
P65	1	0.672	69.68	16.86	52.82	24.2
P71	2	0.705 ± 0.014	77.16 ± 2.35	24.07 ± 0.94	53.09 ± 1.41	31.2 ± 0.3
P81	2	0.661 ± 0.001	59.58 ± 9.66	15.03 ± 2.31	44.55 ± 7.35	25.3 ± 0.2
P90	1	0.630	75.84	22.15	53.69	29.2
Total	47					

Values are mean ± standard deviation. % NeuN+, percentage of NeuN-positive nuclei relative to all nuclei in the structure.

Table S3. Postnatal changes in the number of neurons in different structures of the rat brain

	Cerebral cortex	Hippocampus	Cerebellum	Olfactory bulb	Rest of brain
Dormant period	P0-P3	P0-P3	P0-P3	P0-P3	P0-P3
P0, 10^6	20.3 ± 4.5	2.7 ± 0.9	4.0 ± 0.5	3.8 ± 0.3	28.3 ± 4.7
P3, 10^6	27.8 ± 2.8	3.2 ± 0.1	5.9 ± 1.6	2.8 ± 0.5	26.5 ± 2.8
Variation	No change	No change	No change	No change	No change
Addition of neurons	P3-P6	P3-P7	P3-P21	P3-Adult	P3-P6
No. neurons at maximum, 10^6	44.2 ± 5.9	6.8 ± 0.5	133.7 ± 20.3	11.5 ± 1.6	42.3 ± 10.7
Increase from P0	118%	152%	3142%	203%	49%
Neurons added from P0 to maximum	23.9×10^6	4.1×10^6	129.7×10^6	7.7×10^6	14.0×10^6
Rate of addition during period	$+5.5 \times 10^6$/day	$+0.9 \times 10^6$/day	$+6.2 \times 10^6$/day	$+0.1 \times 10^6$/day	$+5.3 \times 10^6$/day
Neuronal loss	P6-P15	P7-P15	n.a.	n.a.	P6-P15
No. neurons at minimum, 10^6	12.7 ± 1.7	2.3 ± 0.8	n.a.	n.a.	15.8 ± 3.7
Decrease from maximum	−71%	−66%	n.a.	n.a.	−63%
Neurons lost from maximum	-31.5×10^6	-4.5×10^6	n.a.	n.a.	-26.5×10^6

Numbers of neurons in each structure are mean ± standard deviation in millions. Variation, increase and net number of neurons added or lost in the period are given whenever the difference between start and end points indicated is significant ($P < 0.05$); n.a., not applicable.

Table S4. Postnatal changes in the number of non-neuronal cells in different structures of the rat brain

	Cerebral cortex	Hippocampus	Cerebellum		Olfactory bulb	Rest of brain
Dormant period and net addition of neurons	P1-P7	P1-P6	P0-P6		P0-P7	P1-P7
P0 or P1, 10^6	5.3 ± 3.1	0.3 ± 0.1	0.2 ± 0.0		0.2 ± 0.0	7.0 ± 2.0
P6 or P7, 10^6	5.0 ± 0.3	0.4 ± 0.2	1.7 ± 0.6		0.4 ± 0.3	5.7 ± 3.1
Variation	No change	No change	1.5 million		No change	No change
Addition of non-neuronal cells	P7-P21	P6-P21	P6-P17		P7-P21	P7-P25
No. neurons at end of period, 10^6	34.7 ± 0.4	6.2 ± 1.2	45.0 ± 11.7		9.1 ± 1.2	50.4 ± 5.2
Increase from P0 or P1	50×	20.7×	225×		45.5×	20.2×
Non-neurons added from P0 or P1 to end of period	34.0×10^6	5.9×10^6	44.8×10^6		8.9×10^6	44.7×10^6
Rate of addition during period	$+2.1 \times 10^6$/day	$+0.3 \times 10^6$/day	$+4.8 \times 10^6$/day		$+0.5 \times 10^6$/day	$+2.2 \times 10^6$/day
Further change	P21-adult	No change	P17-P25	P25-adult	No change	No change
No. non-neurons at end of period, 10^6	41.4 ± 0.5	n.a.	23.4 ± 2.4	36.7 ± 7.1	n.a.	n.a.
Variation	1.2×	n.a.	0.5×	1.6×	n.a.	n.a.
Difference	6.7×10^6	n.a.	-21.6×10^6	13.3×10^6	n.a.	n.a.

Numbers of non-neuronal cells in each structure are mean ± standard deviation in millions. Variation, increase and net number of non-neuronal cells added or lost in the period are given whenever the difference between start and end points indicated is significant ($P < 0.05$); n.a., not applicable.

Table S5. Postnatal changes in structure mass as a function of the number of cells

	Cerebral cortex		Hippocampus	Cerebellum	Olfactory bulb	Rest of brain
Dormant period	P0-P3		P0-P3	P0-P3	P0-P3	P0-P3
α, M ~ N$^{\alpha}$	n.s.		1.125	n.s.	n.s.	n.s.
α, M ~ NN$^{\alpha}$	n.s.		0.419	n.s.	n.s.	n.s.
Main factors	n.s.		See legend	n.s.	n.s.	n.s.
Addition of neurons	P3-P6		P3-P7	P3-P21	P3-Adult	P3-P6
α, M ~ N$^{\alpha}$	1.146		1.489	0.862	0.749	n.s.
α, M ~ NN$^{\alpha}$	n.s.		n.s.	0.509	0.395	n.s.
Main factors	More neurons Larger cell size		More neurons Larger cell size	More neurons More non-neurons Smaller cell size	More neurons More non-neurons Smaller cell size	Larger cell size
Addition of non-neurons	P6-P15		P7-P15	P6-P17	P7-P21	P6-P15
α, M ~ N$^{\alpha}$	−0.385		0.490	0.863	n.s.	−0.174
α, M ~ NN$^{\alpha}$	0.221		n.s.	0.380	0.183	0.105
Main factors	More non-neurons Smaller cell size		No growth	More neurons More non-neurons Smaller cell size	More non-neurons Smaller cell size	More non-neurons Smaller cell size
Further changes	P15-P25	P25-Adult	P15-Adult	P17-Adult	n.a.	P15-Adult
α, M ~ N$^{\alpha}$	0.436	n.s.	n.s.	n.s.	n.a.	0.311
α, M ~ NN$^{\alpha}$	0.370	n.s.	0.697	n.s.	n.a.	0.725
Main factors	More neurons and non-neurons Smaller cell size		More non-neurons Smaller cell size	n.s.	n.a.	More non-neurons Smaller cell size

Values indicated are the exponents (α) of the power functions relating structure mass (M) and number of neurons (N) or non-neuronal cells (NN). n.s., non-significant. n.a., not applicable. During the dormant period, although the hippocampus does not grow or gain cells significantly, variations in structure mass among individuals correlate with variations in the number of hippocampal neurons or non-neuronal cells according to power functions with the exponents indicated.