

## Supplementary materials

**Table S1.** Histopathological scoring of age-related brain lesions in mature, senior, and geriatric cats.

Case No	Neuronophagia	Satellitosis	Chromatolysis	Neuron lipofuscin deposits	Neuronal vacuolation	Neuronal necrosis and loss	Microglial lipofuscin deposits	Perivascular microglia	Spheroids	Lafora like bodies	H-E positive bodies
4	1	1	1	2	0	2	1	1	1	1	0
5	2	3	2	1	1	2	1	1	0	1	0
6	1	2	2	2	1	1	2	1	2	2	1
7	1	1	1	1	1	1	1	1	0	1	0
8	1	1	1	1	0	1	1	1	0	1	0
9	1	1	1	2	0	1	2	1	0	1	1
10	1	1	1	2	0	1	1	1	0	2	0
11	1	1	1	2	0	1	1	1	1	1	1
12	1	2	2	1	1	1	1	1	0	2	2
13	1	1	2	2	0	1	1	1	0	1	0
14	1	1	1	2	0	1	1	1	0	1	0
15	1	1	1	1	0	1	1	1	0	0	1
16	1	1	1	3	0	2	1	1	0	1	2
17	1	2	2	2	1	2	2	1	0	1	0
18	1	1	2	1	0	2	2	1	0	2	0
19	1	2	2	2	0	1	2	1	0	1	0
20	2	2	2	3	0	2	2	2	1	3	0
21	2	2	2	3	0	2	3	2	0	2	0
22	1	1	2	2	0	1	2	1	0	1	0
23	3	3	3	3	2	3	3	3	0	2	2
24	3	3	3	3	2	3	3	3	2	2	1
25	2	2	2	3	1	2	2	2	0	3	1
26	3	3	3	3	1	2	3	2	0	2	1
27	3	3	3	3	0	2	3	2	0	3	2
28	2	2	2	3	0	2	3	1	0	2	1
29	2	2	2	2	0	2	2	1	1	1	2
30	2	2	2	3	0	2	3	1	2	2	1
Case No	Neuraxonal degeneration	WM & GM vacuolation	GM&WM vascular hyalinosis	GM&WM vascular fibrosis	Leptomeningeal fibrosis	LV fibrosis	LV hyalinosis	LV calcification	CPV & CP epithelial fibrosis	CPV hyalinosis	Hemorrhages
4	1	2	1	1	1	2	0	0	2	0	0
5	2	3	1	1	2	2	0	0	1	0	0
6	2	1	0	0	1	2	0	0	1	0	0
7	1	1	0	0	0	0	0	0	0	0	0
8	1	2	0	0	0	0	0	0	0	0	0
9	1	1	0	1	1	1	0	0	1	0	1
10	1	1	0	0	0	0	0	0	0	0	0
11	1	1	0	0	0	0	0	0	1	0	1
12	1	1	0	0	1	1	0	1	1	0	1
13	1	2	0	0	1	1	0	1	1	0	0
14	1	1	0	1	1	1	0	1	1	0	0
15	1	1	0	0	1	1	0	0	1	0	0
16	1	2	1	1	2	2	0	0	2	0	0
17	1	1	1	1	1	2	0	0	1	0	0
18	2	1	0	1	1	2	0	0	2	1	0
19	1	1	0	0	2	2	0	1	3	0	0
20	2	2	0	1	2	2	0	0	2	0	0
21	2	2	1	1	2	2	1	1	3	1	0
22	1	1	1	0	1	1	0	0	1	0	0
23	3	3	2	1	3	3	2	0	3	1	0
24	3	3	2	1	3	3	2	1	3	0	1
25	3	3	1	0	1	2	1	1	3	0	0
26	3	2	1	0	3	3	0	0	2	0	1
27	3	2	1	1	3	2	0	0	3	0	0
28	3	2	0	1	2	2	0	0	2	0	0
29	2	2	1	1	2	2	0	0	2	1	0
30	2	1	0	1	2	2	0	0	3	1	1

**Table S2.** Iron deposition scoring in the brain of the aged cats.

	<i>Temporal lobe</i>			<i>Hippocampus</i>		<i>Thalamus</i>		<i>Striatum</i>		<i>Frontal lobe</i>			<i>Cerebellum</i>		
<i>Case No.</i>	GM&WM cells	GM&WM IPs	WM MF	Hipp cells	Hipp IPs	Thal cells	Thal IPs	Str cells	Str IPs	GM&WM cells	GM&WM IPs	WM MF	GM&WM&DN cells	GM&WM&DN IPs	WM MF
1 <sup>a</sup>	1	2	0	3	0	1	1	0	1	1	1	0	1	1	0
2 <sup>a</sup>	2	1	0	1	1	1	1	0	1	0	1	0	1	2	1
3 <sup>a</sup>	1	1	0	1	0	1	1	0	0	1	1	0	1	0	0
4	1	2	0	1	1	1	1	0	1	1	2	0	2	3	1
5	2	1	0	3	0	1	1	2	1	2	0	0	2	1	2
6	3	2	3	3	1	1	2	1	1	3	3	2	3	2	1
7	1	1	0	1	1	1	1	1	1	1	1	1	1	2	1
8	0	1	0	1	0	0	1	0	1	1	1	1	1	1	0
9	2	3	1	3	2	1	2	1	1	1	0	0	2	3	2
10	0	1	0	0	1	0	1	0	1	0	1	0	1	1	0
11	1	1	1	1	1	0	1	1	1	1	1	1	1	2	2
12	0	2	0	1	1	1	1	0	0	1	1	1	1	1	1
13	1	2	1	1	1	1	1	0	0	1	1	0	1	1	0
14	1	2	1	1	1	1	2	1	1	1	2	2	1	1	1
15	0	1	1	1	1	0	2	0	1	0	1	1	1	1	1
16	1	1	0	1	1	1	1	0	1	1	2	0	2	3	1
17	1	2	2	1	1	1	2	0	1	0	1	0	0	2	0
18	1	2	1	1	1	1	1	1	1	1	1	0	1	3	1
19	1	3	0	1	2	1	3	1	1	1	2	2	2	2	1
20	1	1	0	2	1	1	1	1	0	2	2	1	2	3	2
21	3	3	3	3	2	1	3	1	1	1	1	1	2	2	3
22	1	1	3	1	0	0	1	0	0	1	1	1	1	1	1
23	2	2	1	1	1	3	1	1	0	2	2	2	1	1	3
24	2	2	1	3	1	1	2	1	2	2	2	0	1	3	3
25	2	3	2	2	2	1	3	1	1	1	3	2	3	2	3
26	3	3	3	2	1	1	3	1	1	1	2	3	3	1	3
27	3	3	3	3	3	1	3	2	1	2	2	3	2	3	3
28	1	2	1	1	1	1	3	0	1	1	1	2	1	3	2
29	1	1	0	2	1	1	2	0	1	1	3	1	2	1	3
30	0	3	0	1	1	2	3	0	1	1	3	1	2	2	3

\* **ves:** vessels; **Hip:** hippocampus; **Thal:** thalamus; **Str:** striatum; **MF:** myelinated fibers; **DN:** dentate nucleus

**Table S3.** Scoring of MT-I/II immunolabelling in cats of different ages

	Temporal lobe			Hippocampus				Thalamus		Striatum		Frontal lobe				Choroid plexus			Ependyma	
Case No.	GM	WM	LV	GM&WM	Hlip GM	Hlip WM	Hip_ves	Thal	Thal ves	Str	Str_ves	IC	GM	WM	LC	LV	GM&WM	CP	CP ves	Ependymal
				ves													ves			cells
1 <sup>a</sup>	0	0	1	1	1	1	0	1	1	0	0	1	1	1	0	1	0	0	1	1
2 <sup>a</sup>	1	1	1	1	0	0	0	0	0	0	0	1	1	1	0	1	1	0	1	0
3 <sup>a</sup>	1	1	1	1	2	2	0	2	1	1	1	2	2	2	0	1	0	1	1	1
4	1	1	1	1	1	1	0	1	0	1	0	1	1	2	0	1	0	1	1	1
5	1	1	1	1	1	1	1	1	1	0	1	1	2	3	1	1	0	1	1	1
6	1	1	1	0	2	2	0	1	0	1	0	1	1	1	1	1	0	0	1	1
7	1	1	1	1	2	2	1	1	1	1	1	1	1	1	0	1	1	1	1	1
8	1	1	1	1	2	2	0	2	0	1	0	2	1	1	0	1	0	0	1	1
9	1	1	0	0	2	2	0	1	0	1	0	1	2	1	0	1	0	0	0	0
10	1	1	0	0	2	2	0	1	0	1	0	1	2	2	0	1	1	0	0	0
11	1	1	1	1	2	2	0	1	0	1	0	1	2	1	0	1	0	1	1	1
12	1	1	1	1	2	2	0	1	0	1	0	1	1	2	0	0	0	0	1	1
13	1	1	1	1	2	2	0	1	0	1	0	2	1	2	0	1	0	0	0	1
14	1	1	1	1	2	2	0	2	0	1	0	2	2	2	0	1	0	0	0	1
15	1	2	1	1	2	2	0	2	0	1	0	2	1	1	0	1	0	0	0	1
16	1	2	1	1	1	1	0	1	1	1	1	1	1	2	1	1	0	1	1	1
17	2	2	1	1	2	2	1	2	1	1	1	1	2	2	0	1	0	1	1	1
18	2	2	1	1	2	2	1	2	1	1	1	2	1	2	0	1	0	1	1	1
19	1	2	1	1	2	2	0	1	1	1	1	2	2	2	0	1	1	1	1	1
20	1	2	1	1	3	3	1	2	1	2	1	2	3	3	0	1	1	1	1	1
21	1	3	1	1	2	2	0	2	0	1	0	2	3	3	1	1	0	1	1	1
22	1	1	1	1	2	2	0	1	0	1	0	2	1	2	0	1	1	1	1	1
23	3	3	1	1	3	3	1	3	1	2	1	2	3	3	1	1	0	1	1	1
24	3	3	1	1	3	2	1	3	0	2	0	2	3	3	1	1	0	1	1	1
25	2	2	1	1	2	2	1	2	1	1	1	2	2	2	—	1	1	1	1	1
26	3	2	1	1	3	3	0	3	1	2	1	2	3	3	1	1	0	1	1	1
27	2	3	1	0	2	2	0	2	0	1	0	2	3	3	1	1	1	1	1	1
28	2	3	1	1	3	3	1	3	1	2	1	2	2	2	1	1	1	1	1	1
29	1	3	1	1	3	2	1	3	1	2	1	2	2	3	1	1	0	1	1	1
30	2	3	1	1	3	2	1	3	1	2	1	2	2	3	1	1	1	1	1	1

\* **ves:** vessels; **Hip:** hippocampus, **Thal:** thalamus; **Str:** striatum; **IC:** internal capsule.

**Table S4.** Grading of GFAP immunolabeling

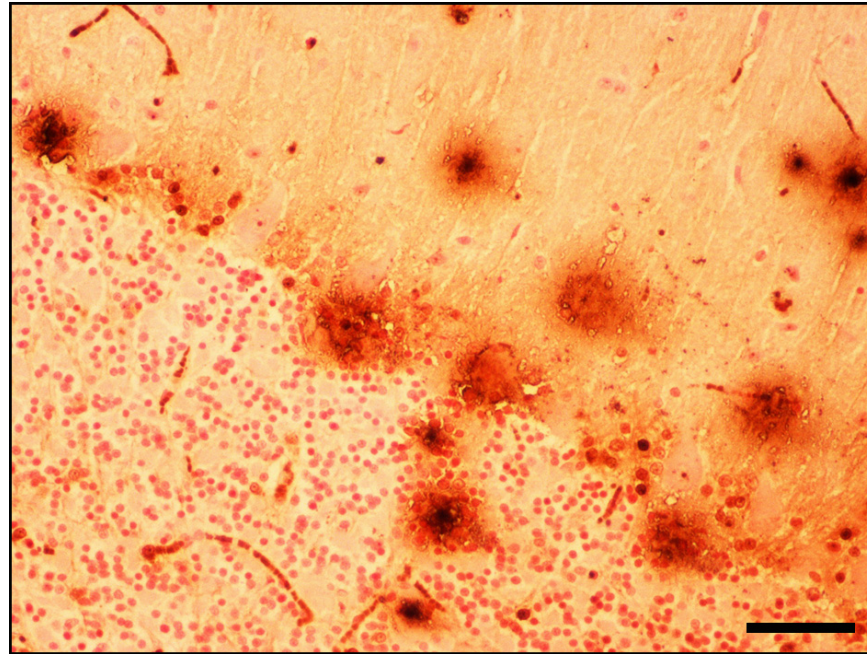
Case No	<i>Temporal lobe</i>			<i>Hippocampus</i>			<i>Frontal lobe</i>			<i>Cerebellum</i>		
	GM	WM	GL	Hip GM	Hip WM	Hip GL	GM	WM	GL	GM	WM	GL
4	2	2	2	2	2	2	1	1	2	2	2	1
5	3	2	1	3	2	1	2	3	2	2	2	2
6	2	2	2	2	2	1	2	2	2	2	2	2
7	2	2	1	2	2	2	1	2	2	2	2	1
8	2	2	1	2	2	1	1	2	1	2	2	1
9	2	2	1	1	2	1	1	2	1	2	2	1
10	2	2	2	2	2	1	2	2	1	2	2	1
11	2	2	2	2	2	1	1	2	2	2	2	1
12	2	2	1	2	2	2	1	2	1	3	2	2
13	1	1	1	1	1	2	1	2	1	1	1	2
14	1	2	2	2	2	1	2	1	2	1	2	1
15	2	2	1	2	1	1	2	2	1	2	2	1
16	3	3	2	1	3	2	2	2	2	3	2	2
17	2	3	2	3	2	2	2	2	2	2	2	2
18	2	3	2	2	2	2	2	3	2	2	2	2
19	2	2	2	2	2	2	2	2	1	2	2	2
20	3	2	2	3	2	2	2	2	1	3	2	2
21	3	3	3	3	2	2	3	3	2	3	2	3
22	3	3	2	2	2	2	2	2	2	2	3	2
23	3	3	3	3	3	3	3	3	2	3	3	3
24	3	3	3	3	3	3	3	3	3	3	3	3
25	3	3	2	3	2	2	2	2	3	3	3	2
26	3	3	3	3	3	3	3	2	2	3	3	3
27	3	3	3	3	3	2	3	3	2	3	3	3
28	3	3	2	3	2	2	2	3	2	2	3	2
29	2	3	2	3	2	2	2	3	3	3	2	2
30	3	3	2	2	3	2	3	3	3	3	3	3

\* GL: glia limitans; Hip: hippocampus

**Table S5.** Scoring of A $\beta$  immunolabelling in the brain of cats of different ages

Temporal lobe				Hippocampus				CP			Frontal lobe				Cerebellum				
Case No	Leptomeningeal CAA	GM+ WM CAA	GM neurons	GM&W M SPs	Hip neurons	Hip SPs	Thal neurons	Thal SPs	Str neurons	Str SPs	CPV	CP epithelial cells	Leptomeningeal CAA	GM&W M CAA	GM neurons	GM+ WM SPs	Leptomeningeal CAA	GM+ WM CAA	GM&DN neurons
	*p<0,001	*p<0,001	*p=0.095 <sup>‡</sup>	*p<0,001	*p<0,002	Non-significant	*p<0,029	*p=0.092 <sup>‡</sup>	Non-significant	*p=0.047	*p<0,001	*p<0,001	*p<0,001	*p<0,002	*p=0.021	*p<0,001	*p<0,002	*p<0,001	*p<0,001
4	1	1	0	3	1	1	1	0	1	0	2	3	3	3	1	1	0	0	0
5	1	1	0	3	1	0	1	0	1	0	3	2	3	1	2	1	0	0	0
6	1	3	1	3	1	0	1	0	1	0	3	3	3	1	2	1	0	0	0
7	2	3	1	0	1	0	1	0	1	0	1	1	2	2	1	0	3	1	1
8	1	1	1	0	1	0	1	0	0	0	1	1	3	1	1	0	3	3	1
9	3	3	0	0	1	0	0	0	0	0	1	1	2	1	1	0	3	2	1
10	1	2	1	0	1	0	1	0	1	0	2	2	2	3	1	0	1	1	1
11	1	1	1	0	1	0	1	0	1	0	1	2	2	1	1	0	1	1	1
12	2	1	1	0	1	0	1	0	1	0	2	3	2	1	1	0	1	1	1
13	2	2	1	1	1	1	1	0	1	0	2	2	3	1	1	1	3	3	1
14	2	3	1	1	2	0	1	0	1	0	1	2	3	2	1	1	1	3	1
15	2	2	0	1	0	0	0	0	0	0	1	1	1	0	0	0	2	1	1
16	3	1	0	2	0	0	0	0	0	0	2	2	3	2	1	0	2	2	1
17	2	3	1	3	2	0	1	0	1	0	2	2	3	3	1	1	1	1	1
18	2	1	1	3	2	0	1	3	2	1	2	3	2	2	2	3	0	0	0
19	2	1	1	2	2	1	1	0	0	0	2	3	2	3	1	1	1	1	1
20	2	2	0	2	2	0	1	0	1	1	2	2	3	2	1	2	2	2	1
21	1	1	0	3	1	1	1	3	1	3	3	3	3	1	1	3	3	3	1
22	2	1	1	1	1	0	1	0	1	0	1	2	3	1	1	0	1	1	1
23	3	3	1	3	2	1	1	2	1	2	3	3	3	3	2	3	3	2	1
24	2	1	1	3	2	1	1	2	1	1	2	3	3	3	1	3	2	2	1
25	1	1	0	3	0	0	0	3	0	1	2	2	3	1	1	3	1	2	1
26	1	1	0	3	2	0	1	3	1	0	3	3	3	2	1	3	3	2	1
27	1	1	0	3	1	3	1	1	1	2	1	3	2	1	0	3	3	3	2
28	1	1	0	3	1	1	0	0	0	1	1	2	3	2	1	3	2	2	1
29	1	1	0	3	0	2	0	0	0	3	2	2	2	2	0	3	3	3	2
30	2	1	0	3	2	3	1	0	1	0	3	3	3	2	1	3	2	2	1

\* ves: vessels; **Hip**: hippocampus, **Thal**: thalamus; **Str**: striatum.



**Figure S1.** Condensed plaques characterized by spherical accumulation of iron with dense core and diffuse, poorly delimited IPs. Neurons and glial cells are also stained. Perl's/DAB. Bar=50 $\mu$ m