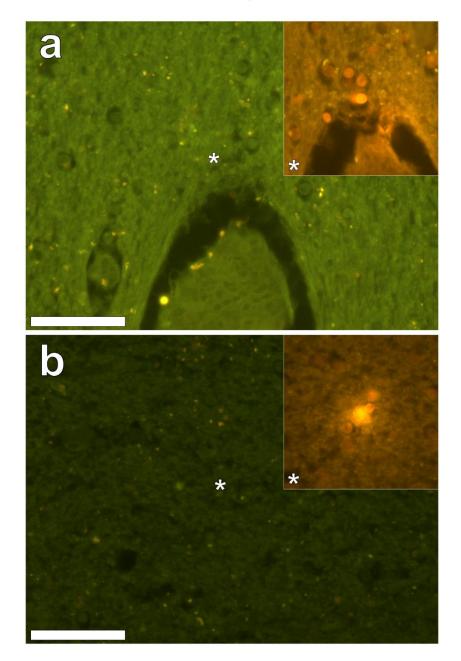
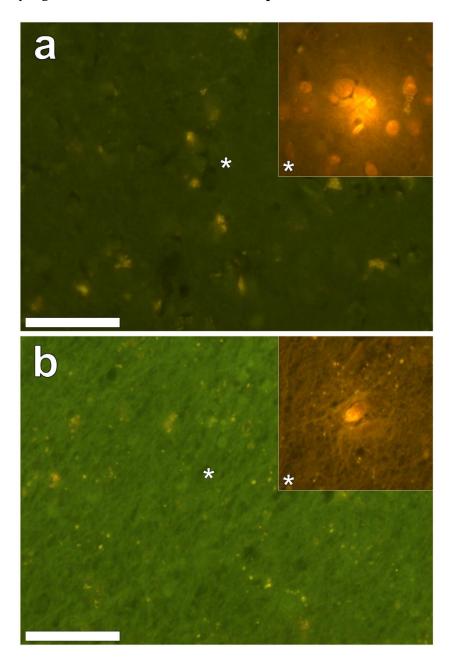
## Supplementary Figure S1. Autofluorescence of the parietal lobe.



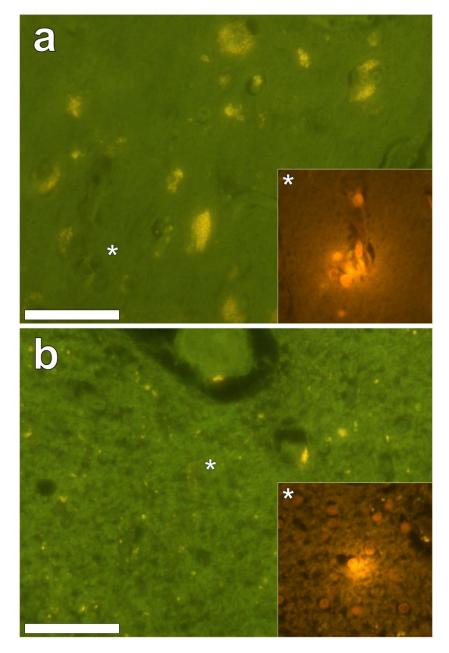
Supplementary Figure 1 Autofluorescence in white matter of the parietal lobe of a 59-year-old female donor with severe CAA, in the same region as lumogallion-reactive aluminium in an adjacent  $5\mu m$  serial section. A green fluorescence emission was noted in the non-stained sections with lipofuscin evident as a yellow pigment. Inserts depict intracellular aluminium in glial-like cells surrounding vasculature (a) and in areas depicting cellular debris in lumogallion-stained serial sections (asterisks) (b). Magnification X 400, scale bars:  $50\mu m$ .

## Supplementary Figure S2. Autofluorescence of the occipital lobe.



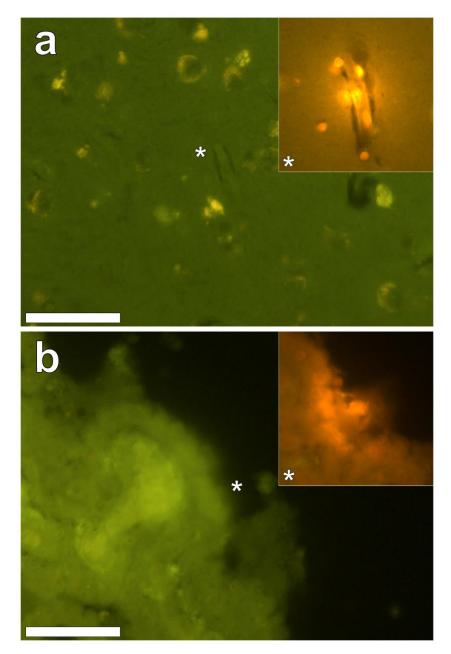
Supplementary Figure 2 Autofluorescence in grey and white matter of the occipital lobe of a 59-year-old female donor with severe CAA, in the same region as lumogallion-reactive aluminium in an adjacent 5µm serial section. A green fluorescence emission was noted in the non-stained sections with lipofuscin evident as a yellow pigment. Inserts depict intracellular aluminium in microglial-like cells surrounding astrocytes in grey matter (a) and in an astrocytic-like cell in white matter, in lumogallion-stained serial sections (asterisks) (b). Magnification X 400, scale bars: 50µm.

## Supplementary Figure S3. Autofluorescence of the temporal lobe.



Supplementary Figure 3 Autofluorescence in grey and white matter regions of the temporal lobe of a 59-year-old female donor with severe CAA, in the same region as lumogallion-reactive aluminium in an adjacent  $5\mu m$  serial section. A green fluorescence emission was noted in the non-stained sections with lipofuscin evident as a yellow pigment. Inserts depict intracellular aluminium in glial cells exhibiting astrocytic-like processes in grey (a) and white (b) matter regions in lumogallion-stained serial sections (asterisks). Magnification X 400, scale bars:  $50\mu m$ .

## Supplementary Figure S4. Autofluorescence of the hippocampus.



Supplementary Figure 4 Autofluorescence in the hippocampus of a 59-year-old female donor with severe CAA, in the same region as lumogallion-reactive aluminium in an adjacent  $5\mu m$  serial section. A green fluorescence emission was noted in the non-stained sections with lipofuscin evident as a yellow pigment. Magnified inserts depict intracellular aluminium in inflammatory cells in the vessel wall (a) and within ependymal cells lining the choroid plexus (b) in lumogallion-stained serial sections (asterisks). Magnification X 400, scale bars:  $50\mu m$ .