Matrix Metalloproteinase 9 mediated intracerebral hemorrhage induced by Cerebral amyloid angiopathy

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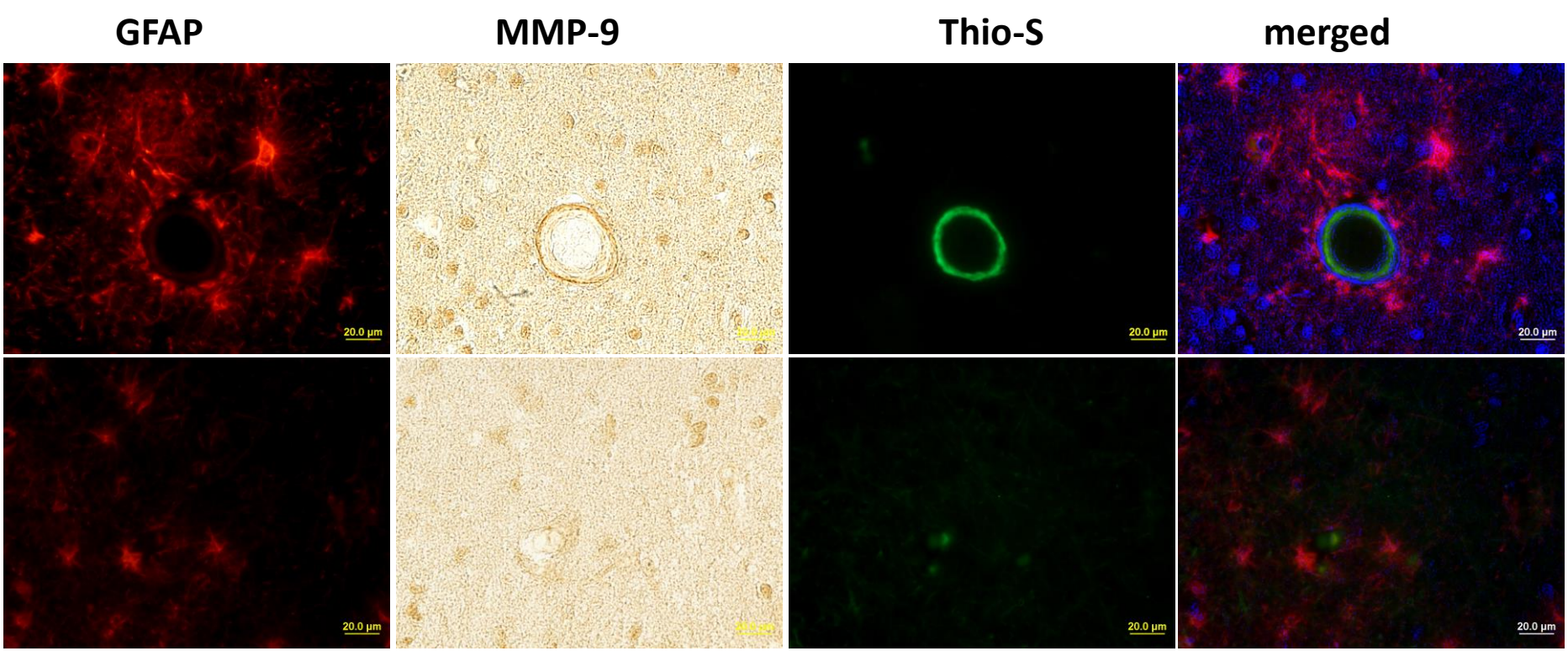
Supplemental Figure Legends

Supplemental Fig. 1 Recruitment of astrocytes around CAA-affected vessels. (A) Representative immunostaining of astrocytes and MMP-9 in CAA-affected vessels. Brain sections from CAA patients (upper panel) or control individuals (lower panel) were stained with thioflavinS (green), an antibody recognizing glial fibrillary acidic protein (GFAP, red), and an antibody recognizing MMP-9 (brown). The images were merged to show the spatial relationship between Aβ, MMP-9, and astrocytes. MMP-9 was shown in blue (pseudo color) in merged picture. Scale bar = 20 μm. (B) Representative confocal image shows the recruitment of astrocytes around CAA-affected vessels. Green: GFAP; blue (pseudo color): thioflavin-S.

Supplemental Fig. 2 Topical application of boiled rMMP-9 failed to induce hemorrhage. Representative images of mouse brains topically treated with 0.4 μg rMMP-9 or rMMP-9 preheated at 90 ºC for 30 minutes (boiled MMP-9). C57/BL6 mice at 3 months of age were prepared with a craniotomy followed by careful removal of the dura mater. The mouse brains were immediately imaged for background images (A and B) using an Ultra-Compact Monochrome 752 x 480 CMOS camera (Mightex Systems, Toronto, Canada) installed on a Zeiss Stemi SV6 Stereo Zoom Microscope (Carl Zeiss, Jena, Germany). rMMP-9 (MMP-9) or boiled rMMP-9 (boiled MMP-9) was topically applied to the surface of mouse brains. Forty eight hours after treatment, the mouse brains treated with rMMP-9 (A') or boiled rMMP-9 (B') were imaged. Arrows show the hemorrhage induced by rMMP-9.

Supplemental Fig. 1

A



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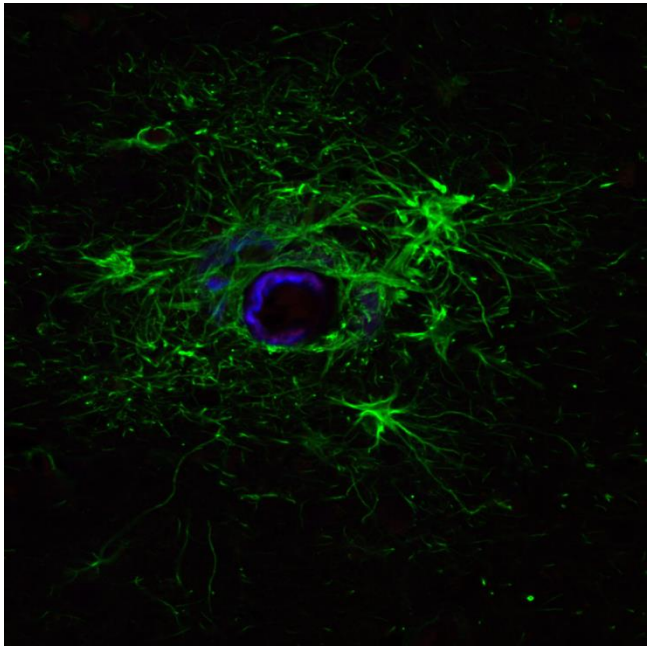

Supplemental Fig. 2