SUPPLEMENTARY MATERIAL

Inhibition of fatty acid synthesis aggravates brain injury, reduces blood-brain barrier integrity and impairs neurological recovery in a murine stroke model

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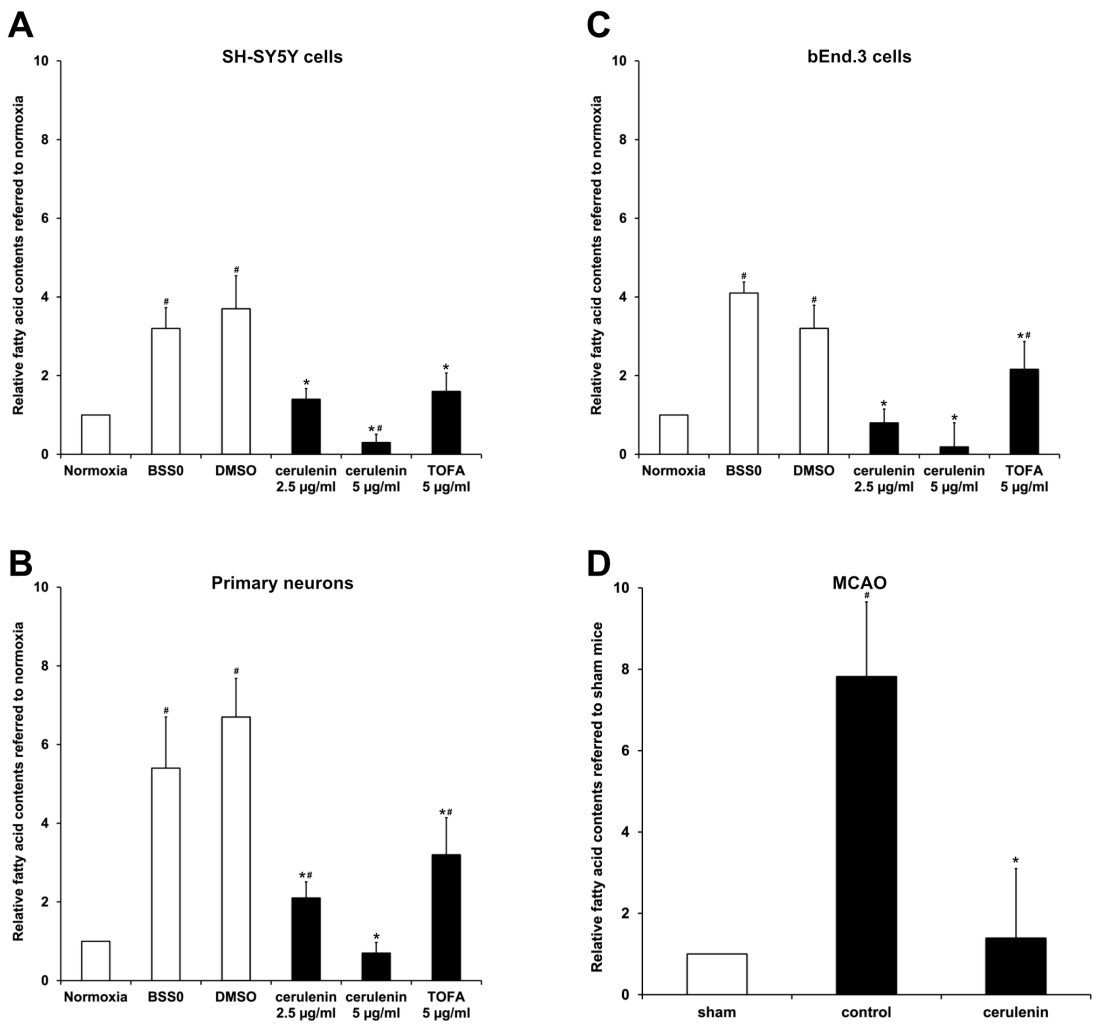
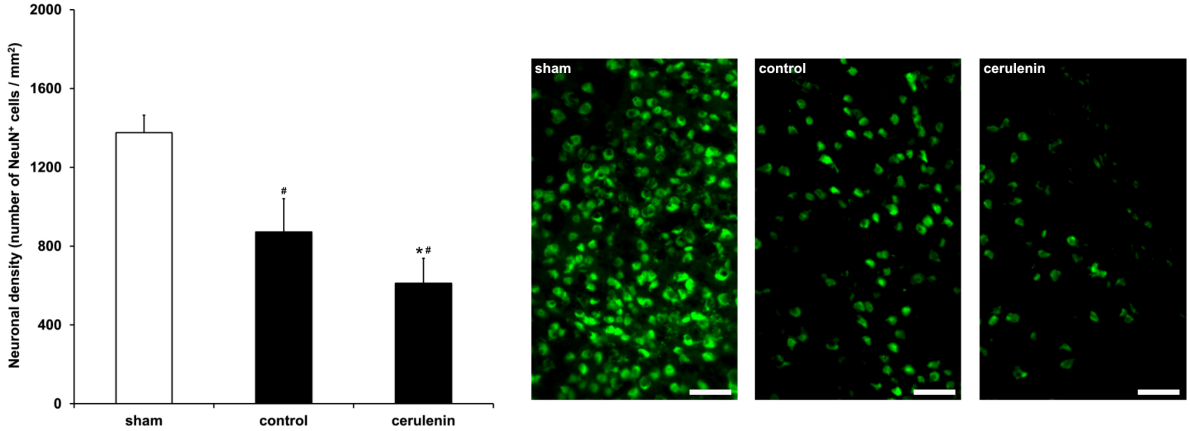
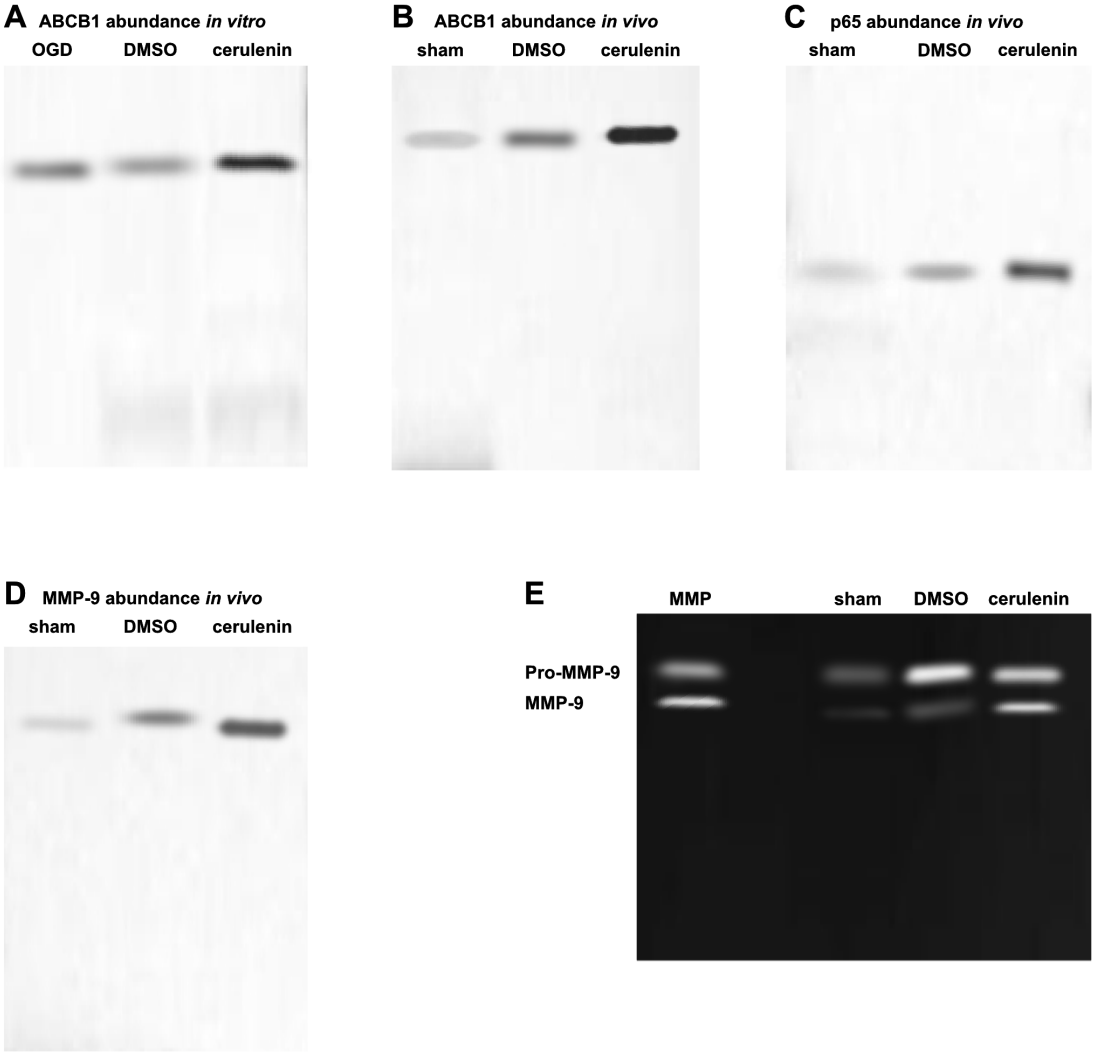


Supplementary Fig. S1. Induction of hypoxia or cerebral ischemia increases fatty acid concentrations. Cells were exposed to hypoxia in BSS0 solution for either 10 h (SH-SY5Y cells **(A)** and primary neurons **(B)**) or for 16 h (bEnd.3 endothelial cells **(C)**) followed by 24 h of reoxygenation under standard cell culture conditions (n=4 per condition). DMSO serves as control for cells treated with cerulenin. Contents of fatty acids is given as relative numbers referring to cells kept under standard (non-hypoxic) cell culture conditions. **(D)** Relative fatty acid concentration referred to sham mice on day 7 after stroke induction (n=6 per condition). Controls received i.p. injections of DMSO as given in the materials and method section. #Significantly different from non-hypoxic ("normoxia") cells or sham mice, $p<0.05$. *Significantly different from corresponding controls, $p<0.05$.



Supplementary Fig. S2. Inhibition of fatty acid synthesis aggravates long-term brain injury. Neuronal densities were analyzed on day 28 poststroke using NeuN staining within the ischemic striatum (n=12 per condition), as given in the materials and method section. DMSO serves as control for mice treated with cerulenin, whereas sham mice were not exposed to cerebral ischemia. Representative photos of such NeuN staining are shown for each condition with scale bars of 50 µm each. #Significantly different from sham mice, $p<0.05$. *Significantly different from controls, $p<0.05$.



Supplementary Fig. S3. Representative Western blots and gel zymography. Western blot against ABCB1 was done in endothelial cells after oxygen-glucose-deprivation (OGD) injury **(A)** and after middle cerebral artery occlusion (MCAO) in mice **(B)**. The abundance of NF-κB-p65 **(C)** and of matrix metalloprotease (MMP) 9 **(D)** was measured in sham mice and in MCAO mice. MCAO mice were treated with either DMSO (control) or cerulenin. **(E)** Representative gel zymography of MMP-9 in sham and MCAO mice.