

SUPPLEMENTARY FIG. S3. DMF protects against astrogliosis in the STR of Nrf2<sup>+/+</sup> but not Nrf2<sup>-/-</sup> mice injected with rAAV6- $\alpha$ o-SYN. Photographs show immunohistochemistry for the astrocyte marker GFAP in 30  $\mu$ m-thick sections of STR from Nrf2<sup>+/+</sup> and Nrf2<sup>-/-</sup> mice after 1 week (A), 3 weeks (B), and 8 weeks (C) from injection with rAAV6- $\alpha$ -SYN and DMF treatment. Graphs indicate astrocyte number given as ratio between the ipsilateral and contralateral sides (n=4-6 animals per group). Differences among groups were assessed by two-way ANOVA followed by Bonferroni's test. Asterisks denote significant differences with \*p<0.05 and \*\*p<0.01, comparing the indicated groups. As astrocytes surround and protect dopaminergic synapses, we interpret that the STR astrogliosis serves to fill gaps left by fibers of dying neurons as well as to protect the remaining tripartite synapses.