



**Supplementary Figure S2.** DOX safety–neuropathological assessment of 100 mg/day equivalent in rats for 1 month. After 1 month of the 100 mg/day equivalent of DOX, a neuropathological analysis was performed to determine the safety of this combination in the rat brain. Architectural scaffolding in the brains of rats, shown by staining Nissl bodies, reveals no gross abnormalities versus the control. Further investigation of various structural components (axons and myelin sheaths [MBP]; dopaminergic nerve fibers [TH]) showed no differences in DOX-treated animals and controls. There appears to be an increase, however, in the immunological components of the brain, as CD68<sup>+</sup> macrophages (ED1), major-histocompatibility complex-II antigen presenting cells (MHC-II), CD8<sup>+</sup> T-cells (CD8), and activated macrophages and microglia (Iba1) revealed an increasing in staining around the injection sites of DOX-treated animals when compared with controls. Scale bars for neuropathology: 1,000  $\mu\text{m}$  for full brain sections, 200  $\mu\text{m}$  for 4 $\times$  images, and 20  $\mu\text{m}$  for 40 $\times$  images.