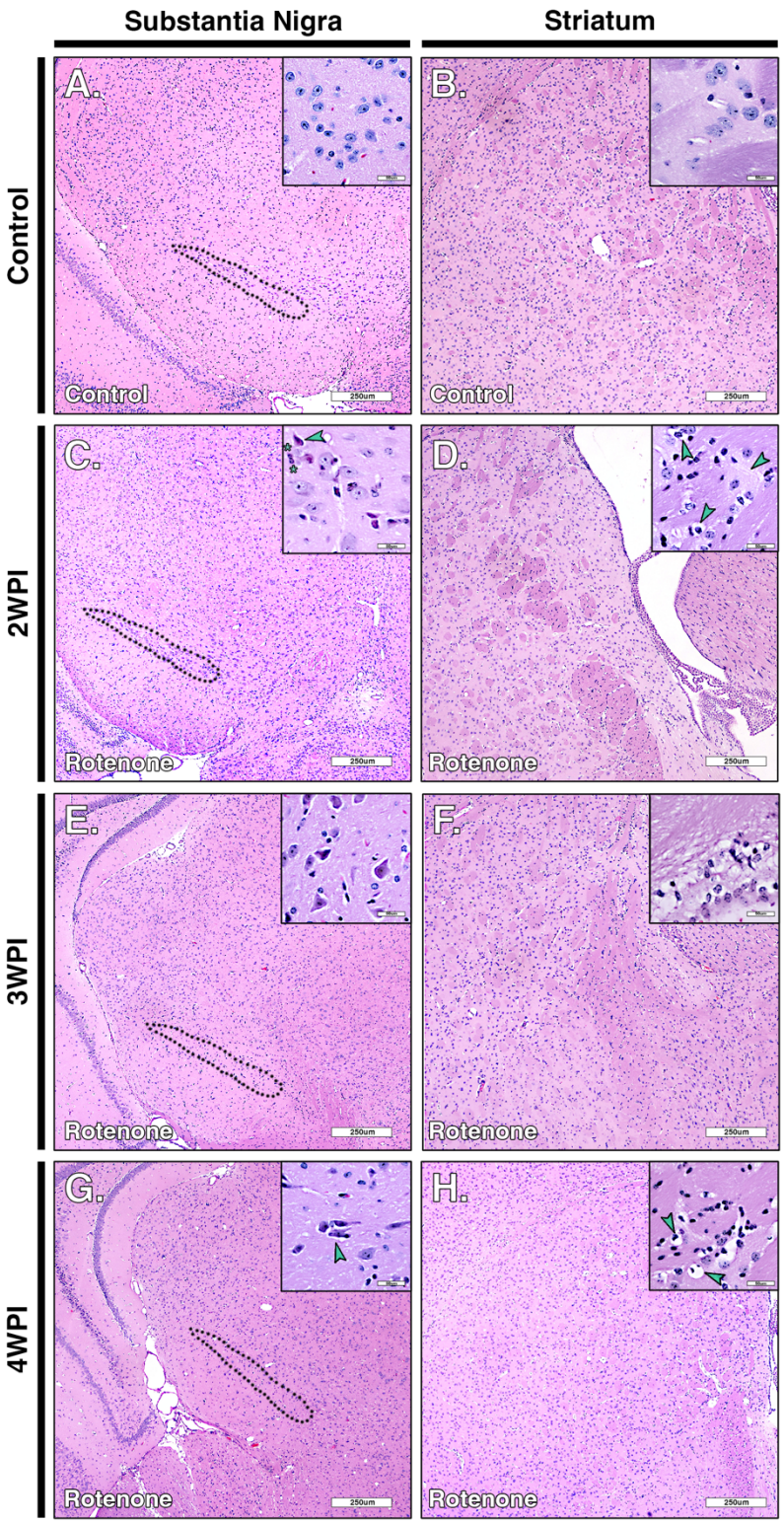
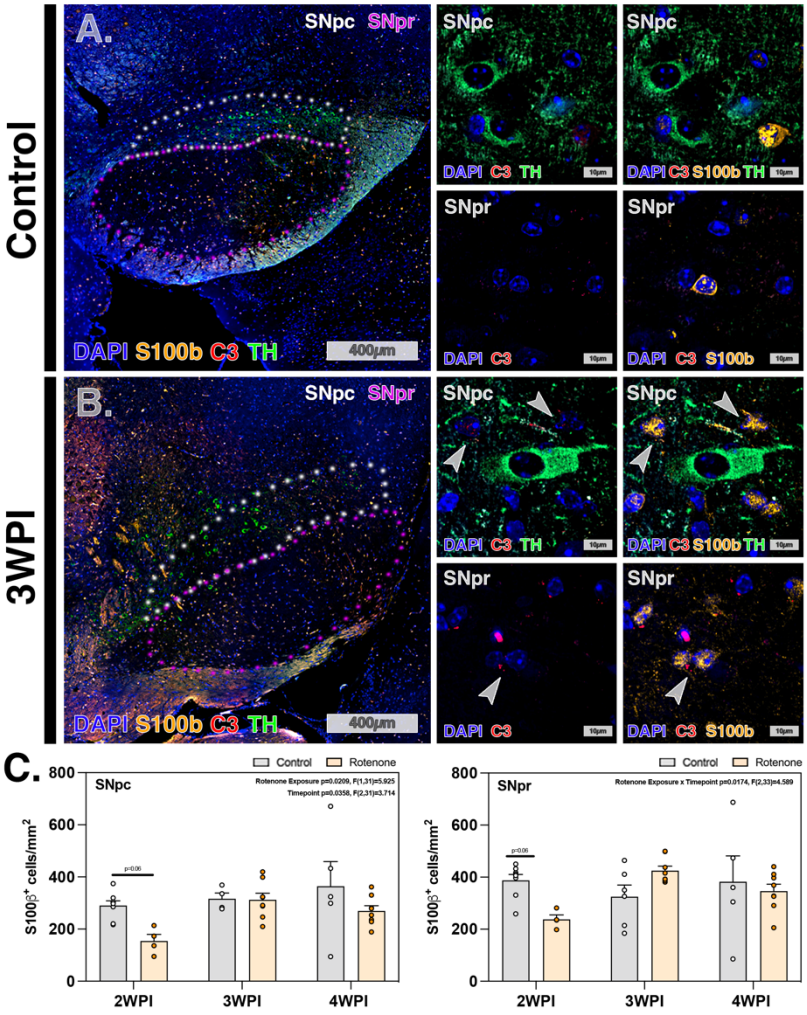
Supplementary Material

Supplementary Figure 1



Supplementary Figure 1. Pathological analysis reveals time-dependent neuronal and glial changes within the nigro-striatal system following systemic administration of rotenone. (**A,B**) Control animals presented with normal cellular borders, with margins in the SN (**A**) and the ST (**B**) that were unremarkable in the cell populations present and had clear striosomes and axonal functionality. Pathological changes within the SN at 2WPI reveal hyper-eosinophilic cytoplasmic neurons (**C**, arrowheads) with focal neuronal apoptosis and presentation of Alzheimer Type II cells (**C**, asterisk). Cytotoxic edema is present surrounding glial cells within the ST and there is rare intramyelinic edema (**D**, arrowheads). (**E**) The SN at 3WPI had decreased numbers of neurons within the SN, with surviving neurons characterized by angular morphology, along with prolific spongiosis in the ST and persistent intramyelinic edema **(F)**. Marked loss of neuronal density was observed in the SN at 4WPI with the occurrence of angular bordered cells (**G**, arrowheads). Cytotoxic edema was present within the ST (**H**, arrowheads), and glial cell infiltration into striosomes.

Supplementary Figure 2



Supplementary Figure 2. S100β$^+$ populations' adaptation to rotenone exposure is time dependent. Montage images of control (**A**) and 3 WPI rotenone exposed (**B**) animals with high magnification inserts of TH$^+$ dopaminergic neurons (green), S100β$^+$ astrocytes (orange), and C3 (red) in the SNpc and SNpr. S100β$^+$ cell types correlating with positive C3 staining (arrowheads) (**A-B**, high magnification) and quantification of overall S100β$^+$ populations in the SNpc and SNpr (**C**).