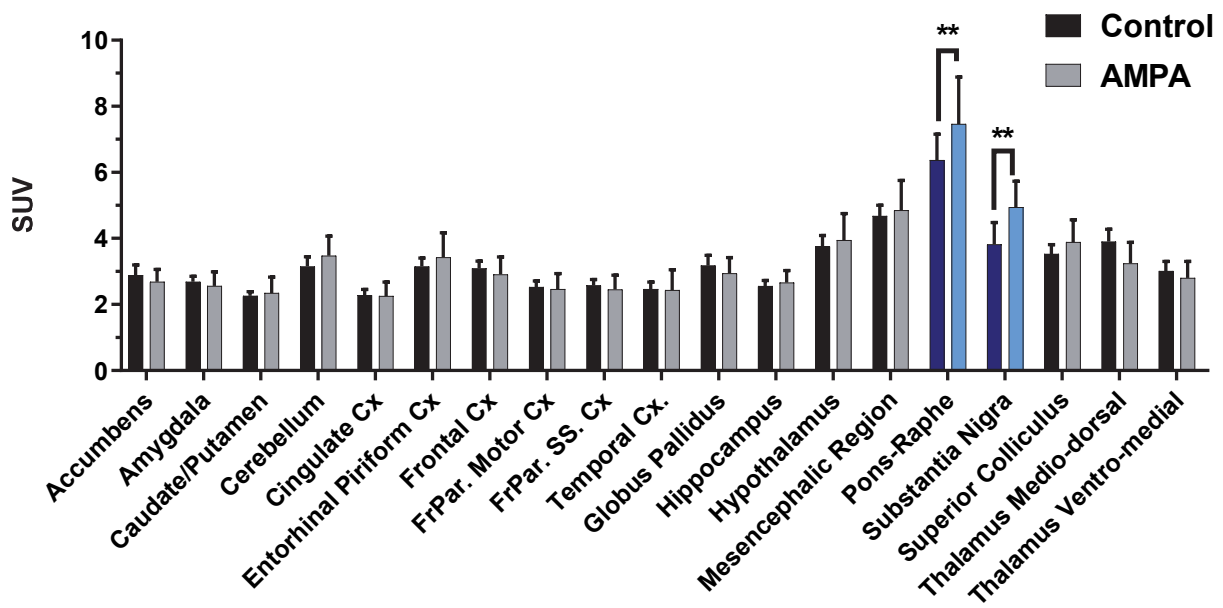
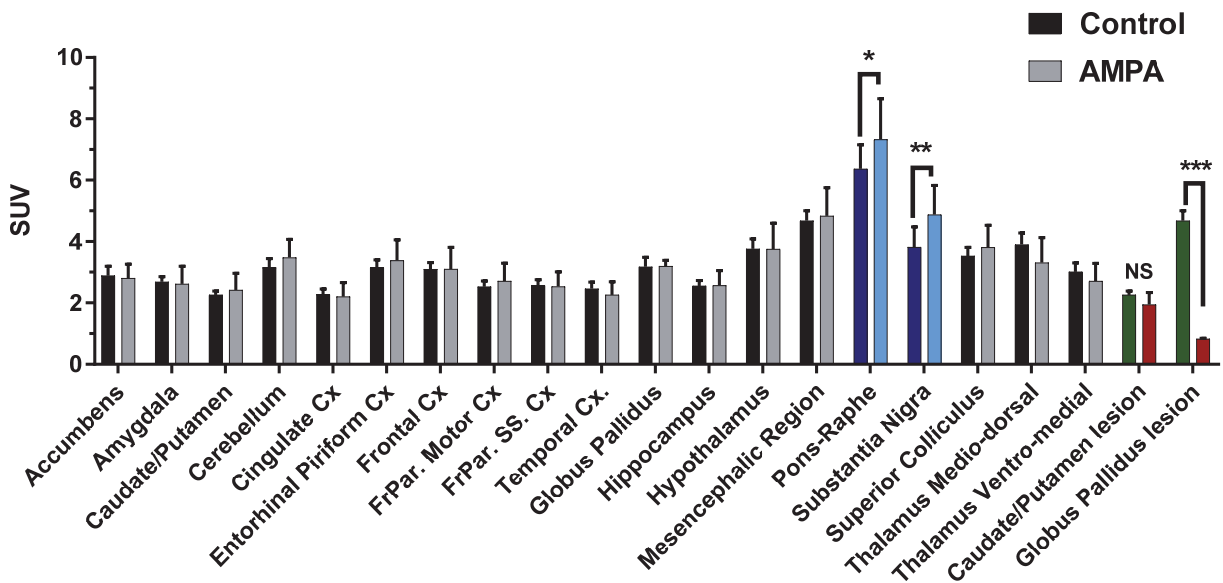
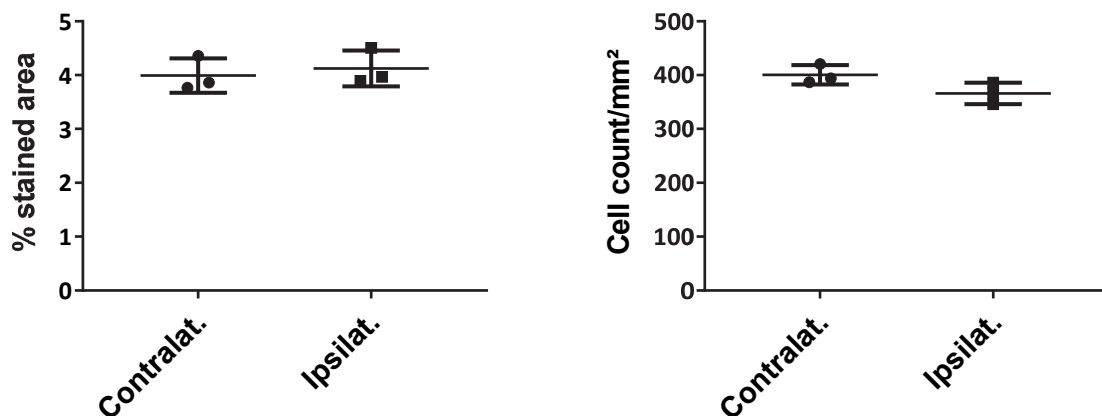


A**Contralateral ROI vs control rats****B****Ipsilateral ROI vs control rats****C****NeuN quantification in *substantia nigra***

Supplementary Figure 1: Comparison of ^{18}F -IAM6067 brain uptake between control (naïve) (light bars) and AMPA injected rats (dark bars) in various brain regions. Note the significant increase in ^{18}F -IAM6067 brain uptake in both the ipsi- and contralateral *Substantia nigra* and pons-raphé (**A & B**, dark blue bars vs light blue bars) in AMPA injected animals vs controls and the significant decrease in the *Globus pallidus* (**B**, red vs green bars). (**C**) Quantification of the neuronal density (as % stained area and cells/mm²) in the *Substantia nigra*. Data are expressed as mean \pm SD. PET data were analysed with a 2 way-ANOVA followed by a Sidak's post-hoc test and immunostaining parameters were analysed using paired *t*-tests. ** And *** indicates $p < 0.01$ and $p < 0.001$ respectively. (FrPar. = frontoparietal, SS. = somatosensory, Cx = cortex).