A

Contralateral ROI vs control rats

SUV

Contralateral ROI vs control rats

B

Ipsilateral ROI vs control rats

SUV

NeuN quantification in substantia nigra

C

% stained area

Cell count/mm²
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-raphe (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 ± 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).