Figure S1. Graphical abstract. The balance between glutamate (cortex and thalamus) and dopamine (substantia nigra) inputs on striatal neurons of vital importance. The present study aimed to characterize the influence of corticostriatal glutamatergic inputs on striatal neurons after decortication due to dopamine depletion in rats. 6OHDA was injected into the right medial forebrain bundle to induce dopamine depletion and/or IA into the primary motor cortex to induce decortication. Therefore, the present study established a PD model and a decortication model to determine the effect of the motor cortex on striatal neuron damage after 6-OHDA-induced DA depletion using IHC, EM, WB and RT-qPCR. SN, substantia nigra pars compacta; M1, primary motor cortex; STR, striatum; DA, dopamine; GLU, glutamate; 6OHDA, 6-hydroxydopamine; IA, ibotenic acid; EM, electron microscopy; IHC, immunohistochemistry; WB, western blotting; RT-qPCR, reverse transcription-quantitative PCR.