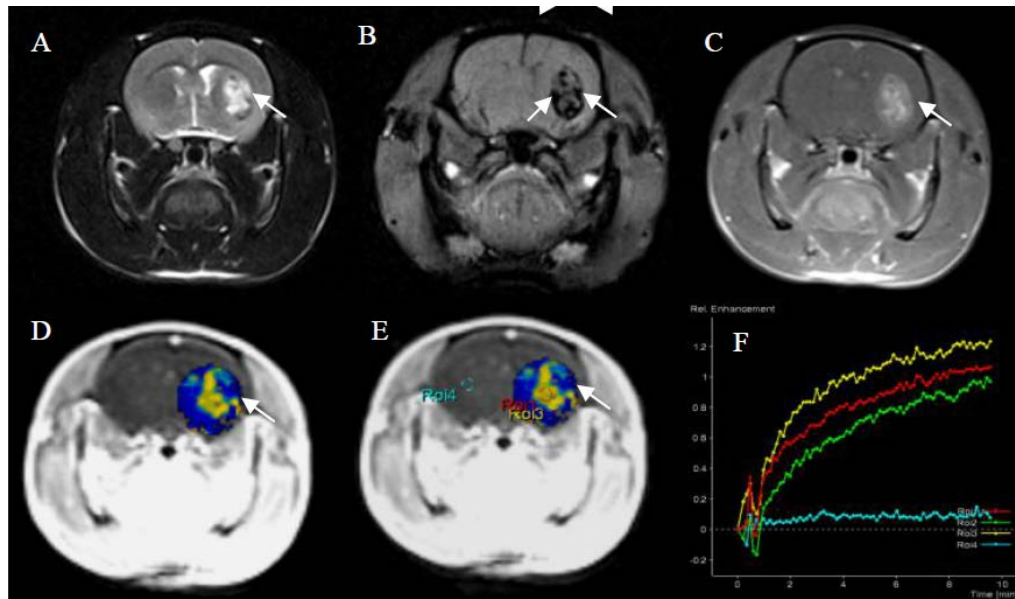
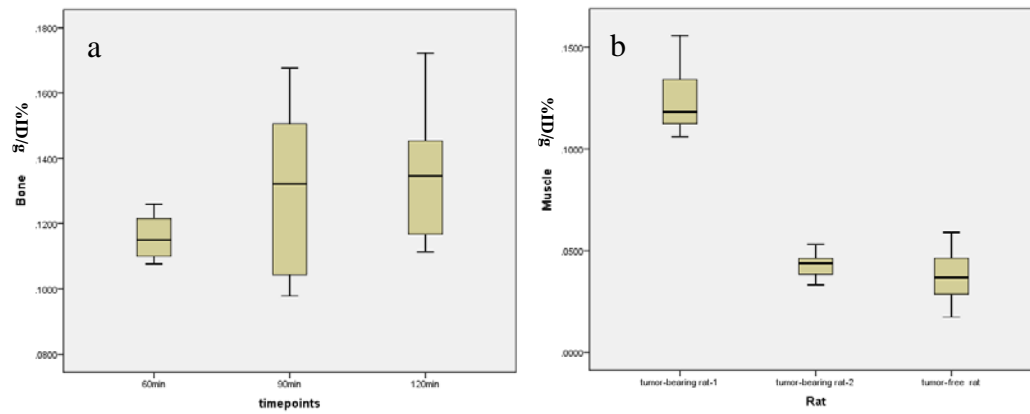


Supplementary Materials



Supplementary Figure 1: MRI T2WI (A), susceptibility weighted imaging (SWI) (B), and conventional T1WI contrast enhancement (C) showing a soft tissue mass in the left basal ganglia. The tumor on T2WI manifested as uneven high signal, and, inside and around tumor. SWI demonstrated points and strip-shaped low signal shadows in the tumor (arrows); furthermore, the tumor showed obvious uneven enhancement. K^{trans} (D, E) maps demonstrating a higher K^{trans} value in the tumor than in the contralateral normal brain parenchyma, especially for the enhancement part in T1WI enhanced MRI (yellow circle: ROI 3); concentration-time curve (F) clearly shows that K^{trans} in the tumor (ROI 1-3) was significantly higher than that of the contralateral normal brain parenchyma (ROI 4).



Supplement Figure 2: (a), the uptake of $[^{18}\text{F}]$ -FP-Chlorotoxin in bone with little standard deviation among the three time points, and its range is from 0.0978 to 0.1722 %ID/g, which in the other way showed that $[^{18}\text{F}]$ -FP-Chlorotoxin was stable; (b), the uptake of $[^{18}\text{F}]$ -FP-Chlorotoxin in the muscle of each rat with little variance at 90 min.