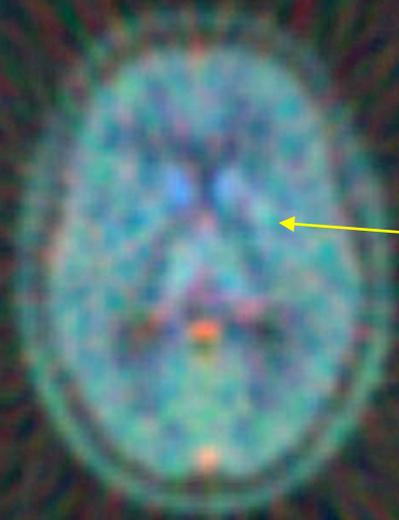
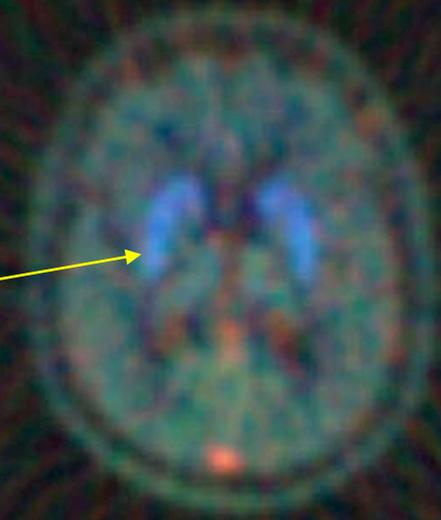


[F-18]-L-DOPA PET scan shows loss of dopaminergic neurons



Elderly Parkinson's

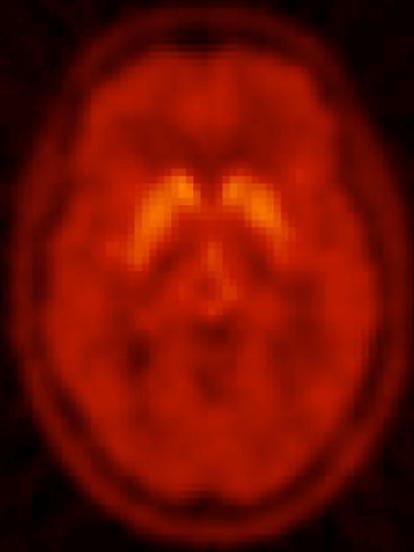


Elderly Normal

Putamen shows little dopaminergic activity compared to normal

- red shows early blood flow
- green shows blood volume
- blue indicates concentration of dopaminergic neurons

[F-18]-L-DOPA PET scan shows loss of dopaminergic neurons



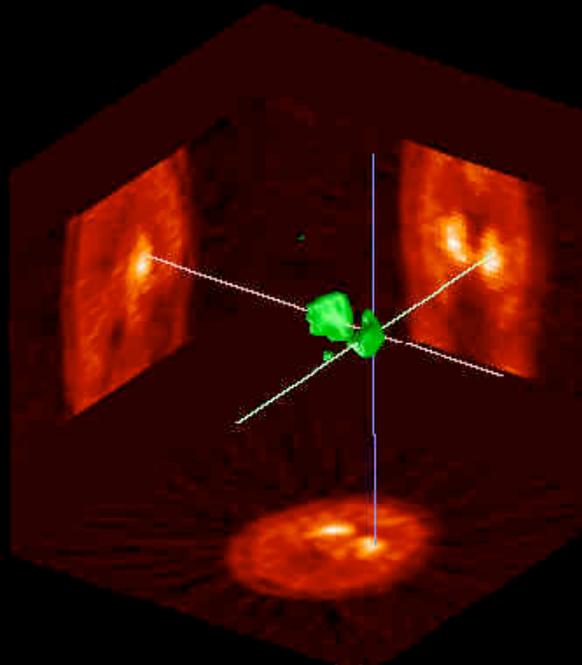
Elderly Parkinson's



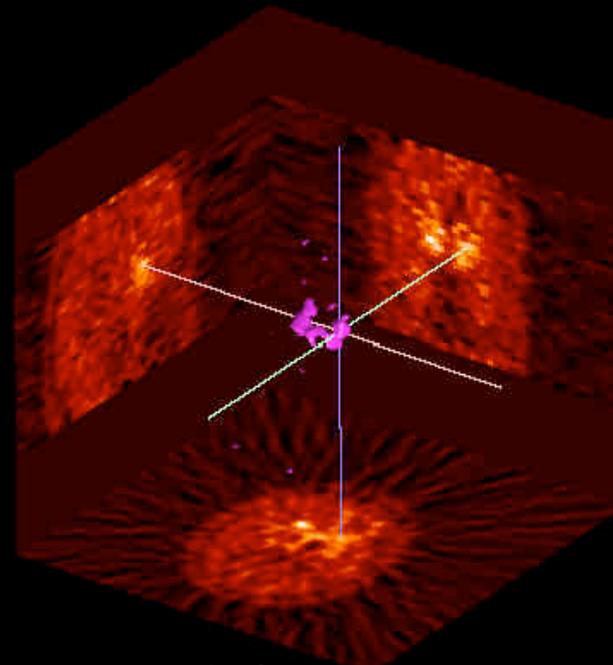
Elderly Normal

Functional Striatal Volumes indicated by [F-18]-L-DOPA PET

PET
slices



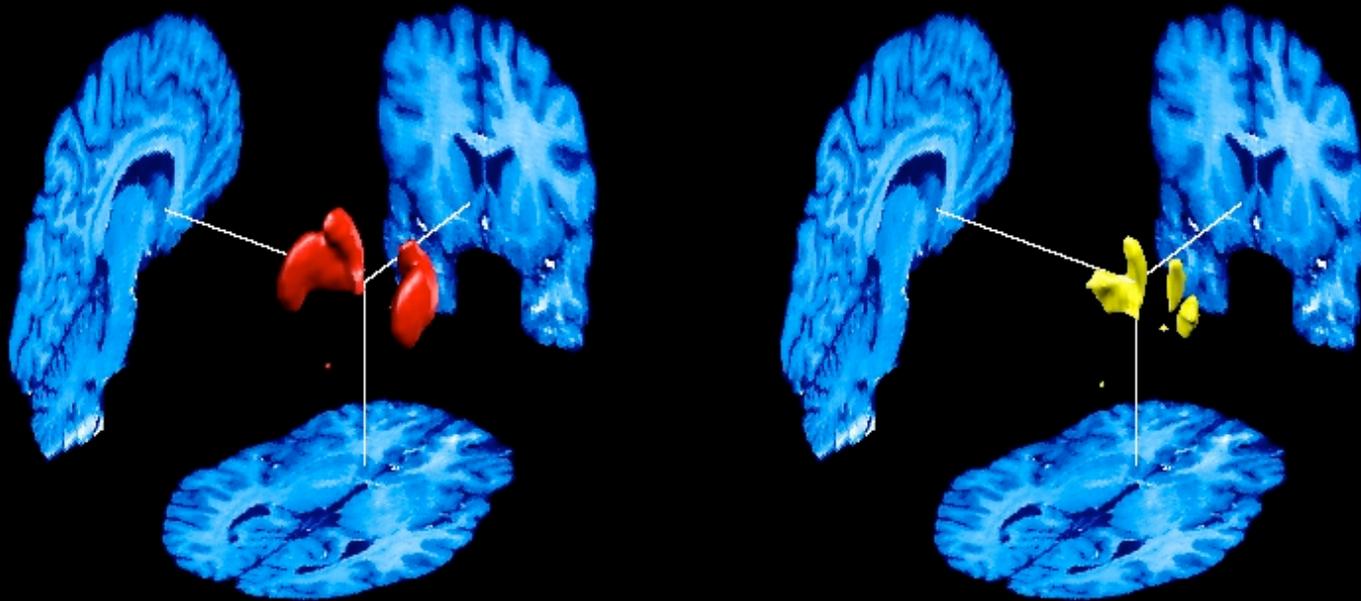
Healthy



Parkinsonian

Loss of metabolic activity in striatum for Parkinson's disease.

PET scan using ^{18}F -L-DOPA shows functional deficit in Parkinsonian

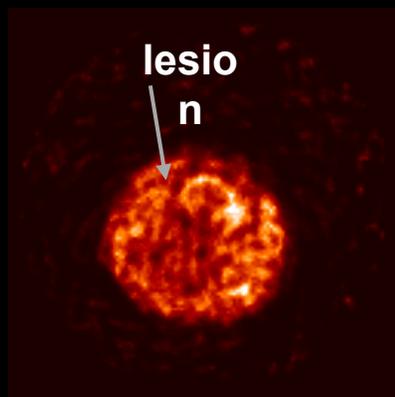
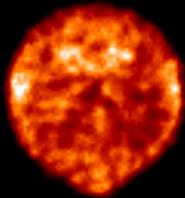


Normal elderly

Parkinsonian

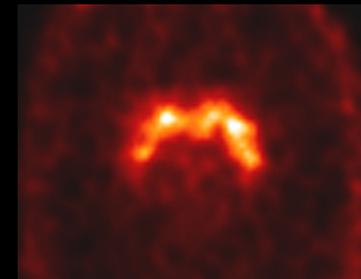
[¹⁸F]-FMT shows dopamine synthesis

[¹⁸F]-FMT in rat
control

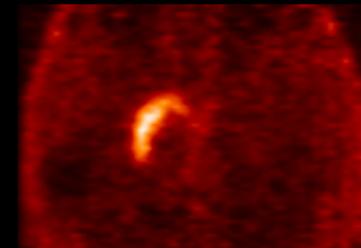


(courtesy Dr. Zhang)

[¹⁸F]-FMT in rhesus



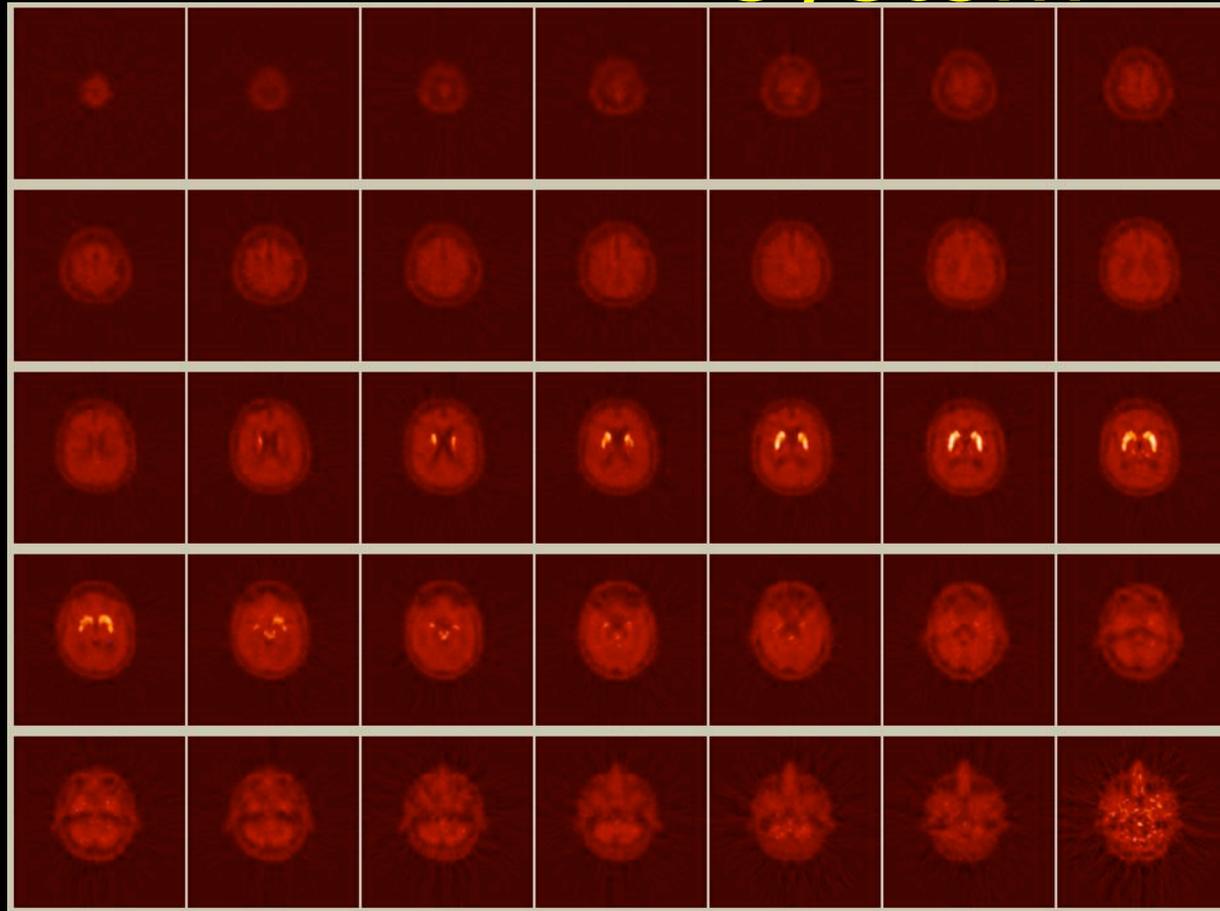
pre-MPTP



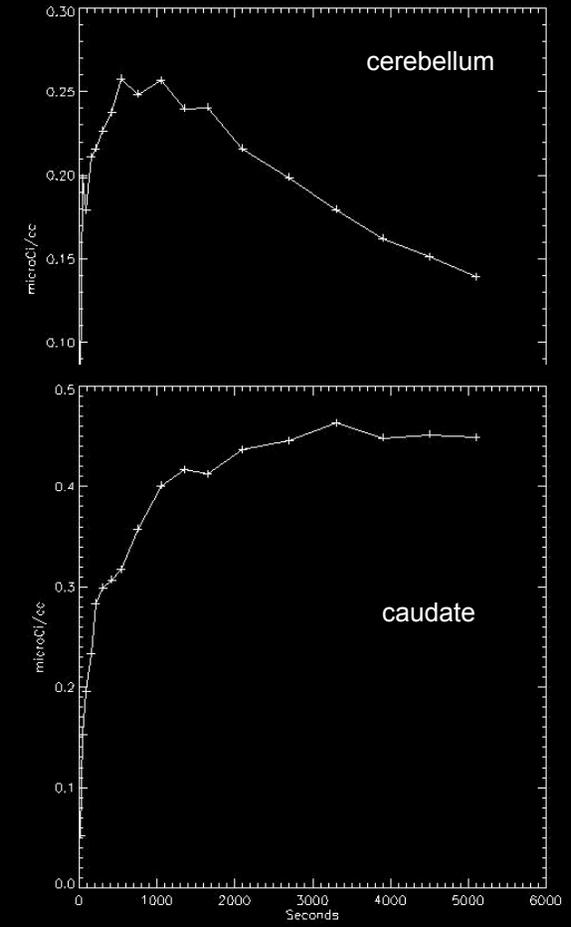
unilateral MPTP lesion

(courtesy of Dr. Terasawa)

Imaging the Dopaminergic system



^{18}F -fluoro-L-DOPA in normal elderly human



Extracting Data from Images

ROI time series: examining how data in a ROI changes over time.

