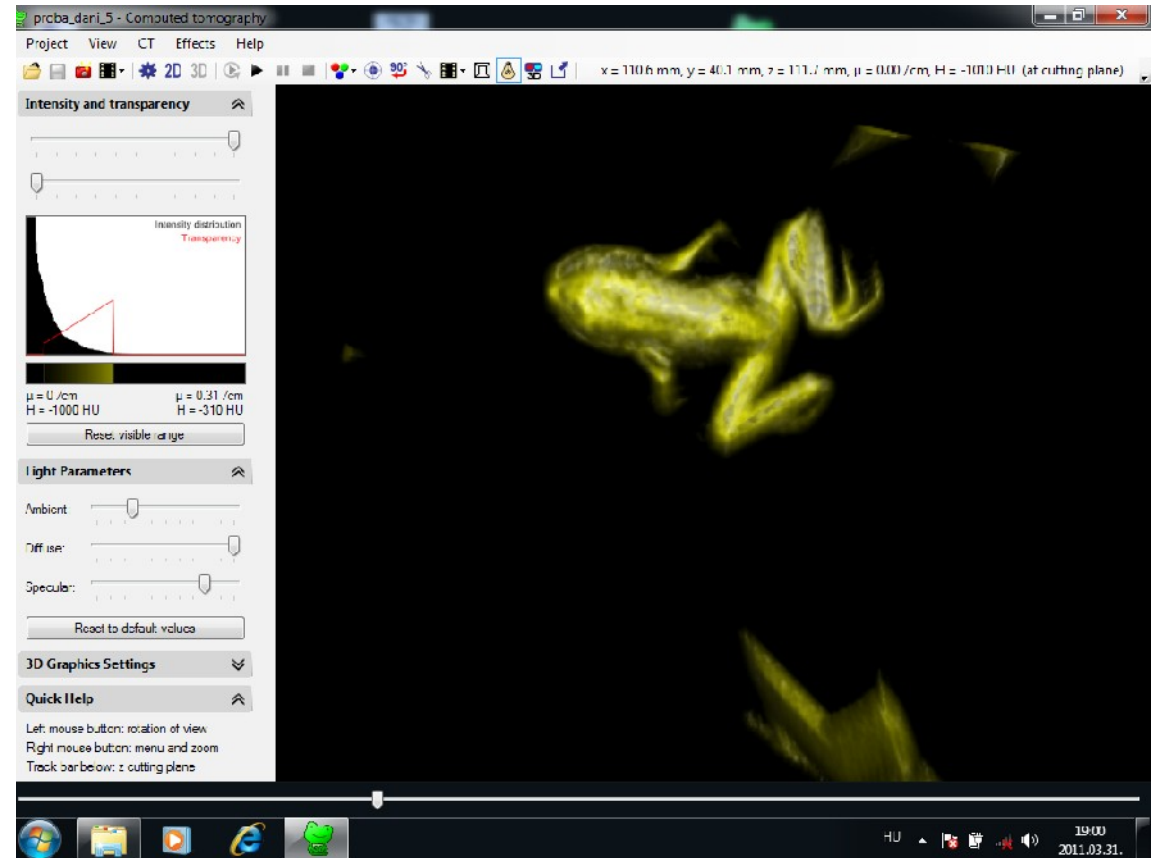
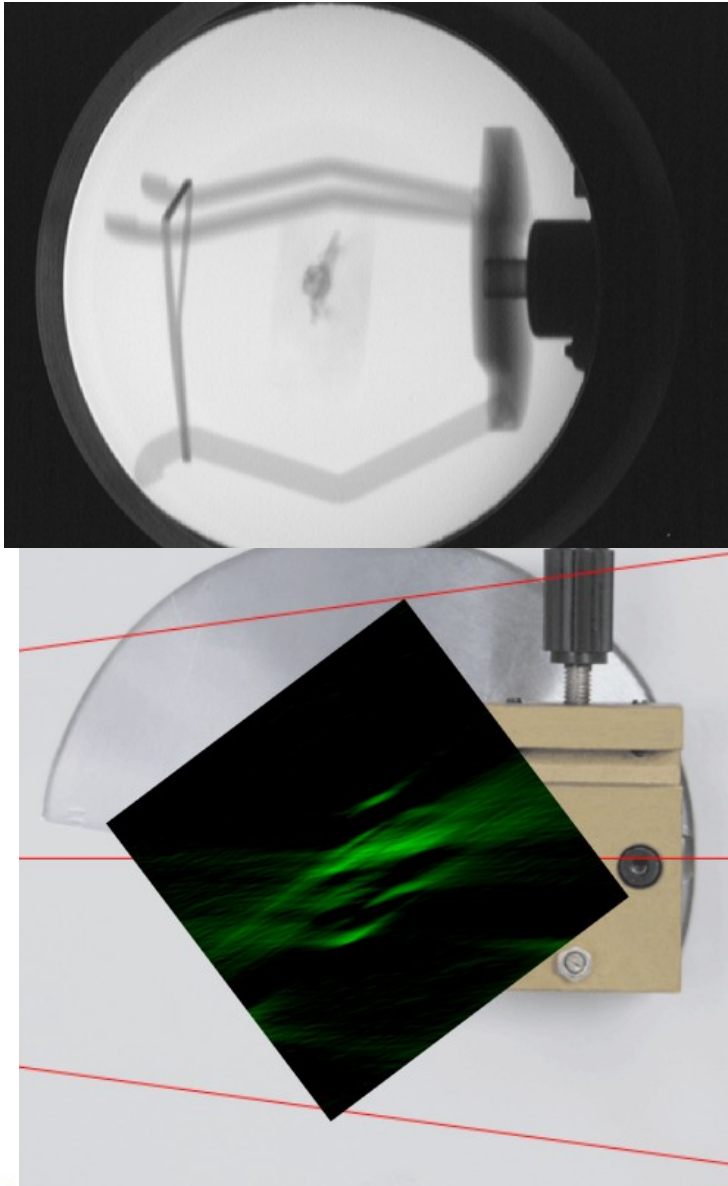
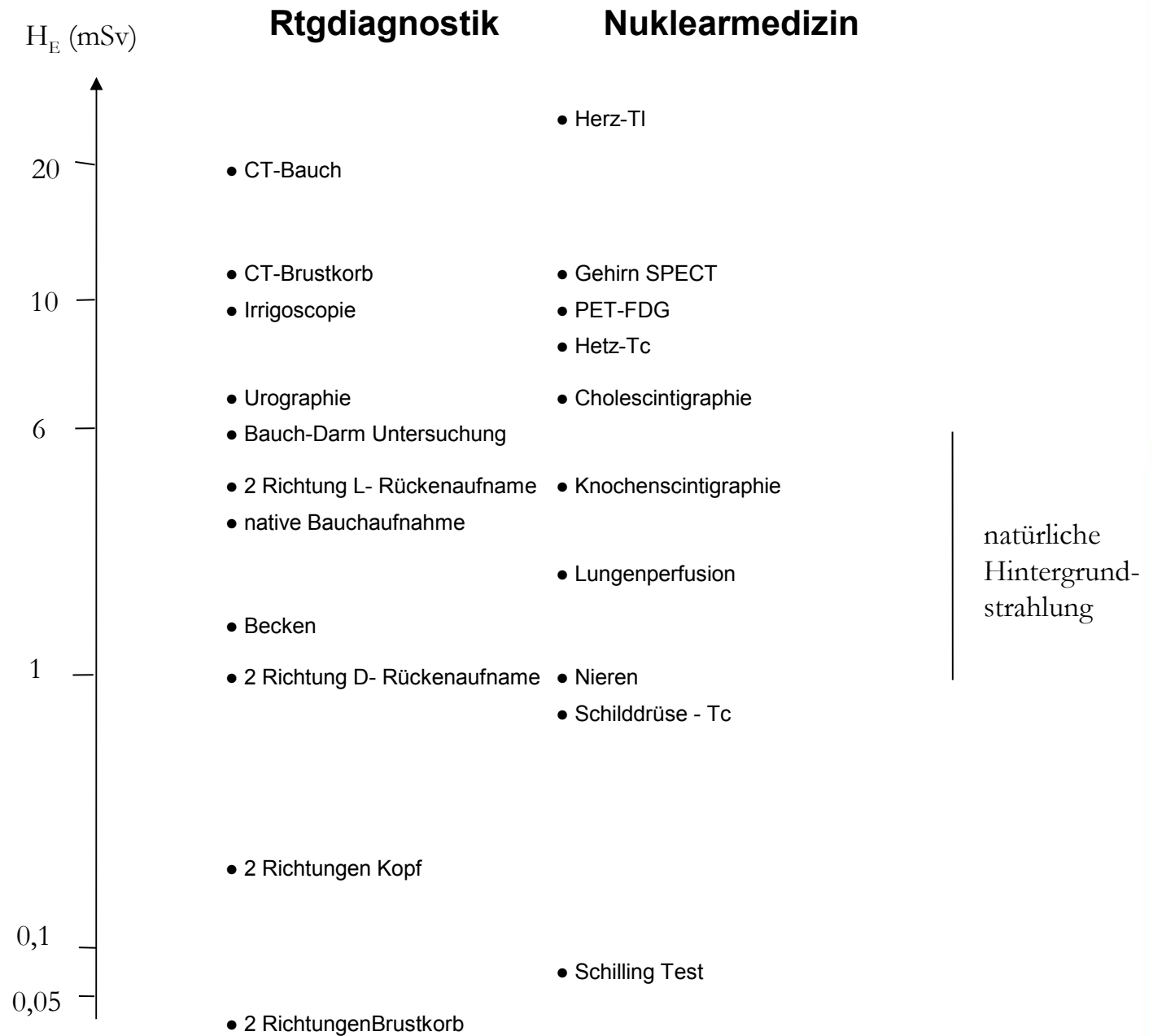


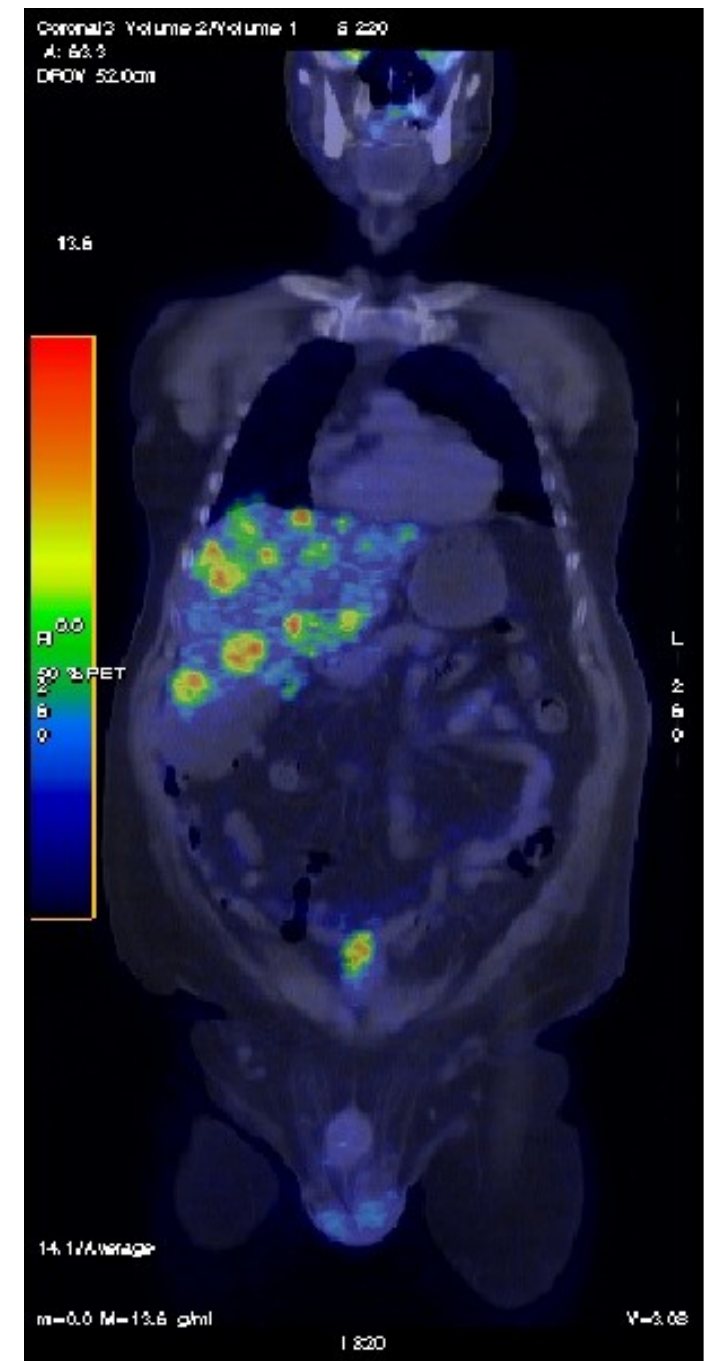
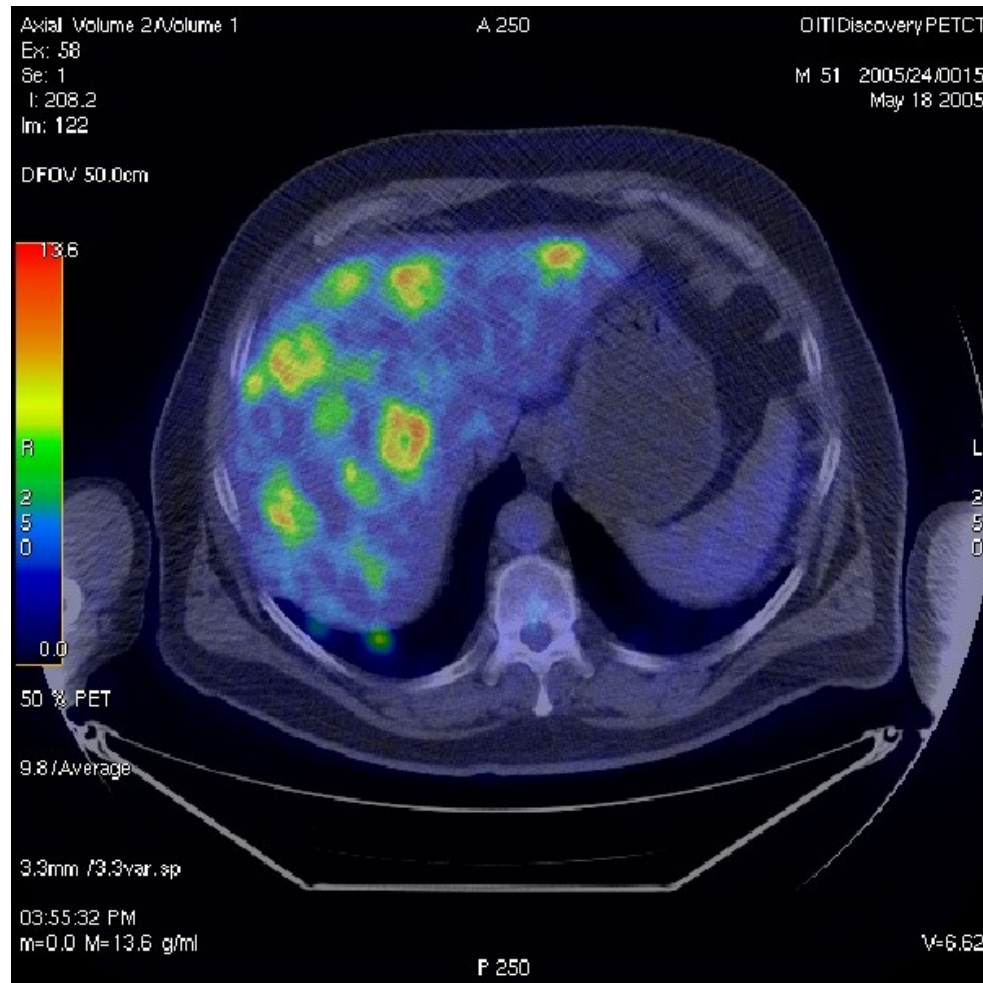
Nuklearmedizin und molekuläre bildgebende Verfahren

3D Bildrekonstruktion – iterative Rückprojektion

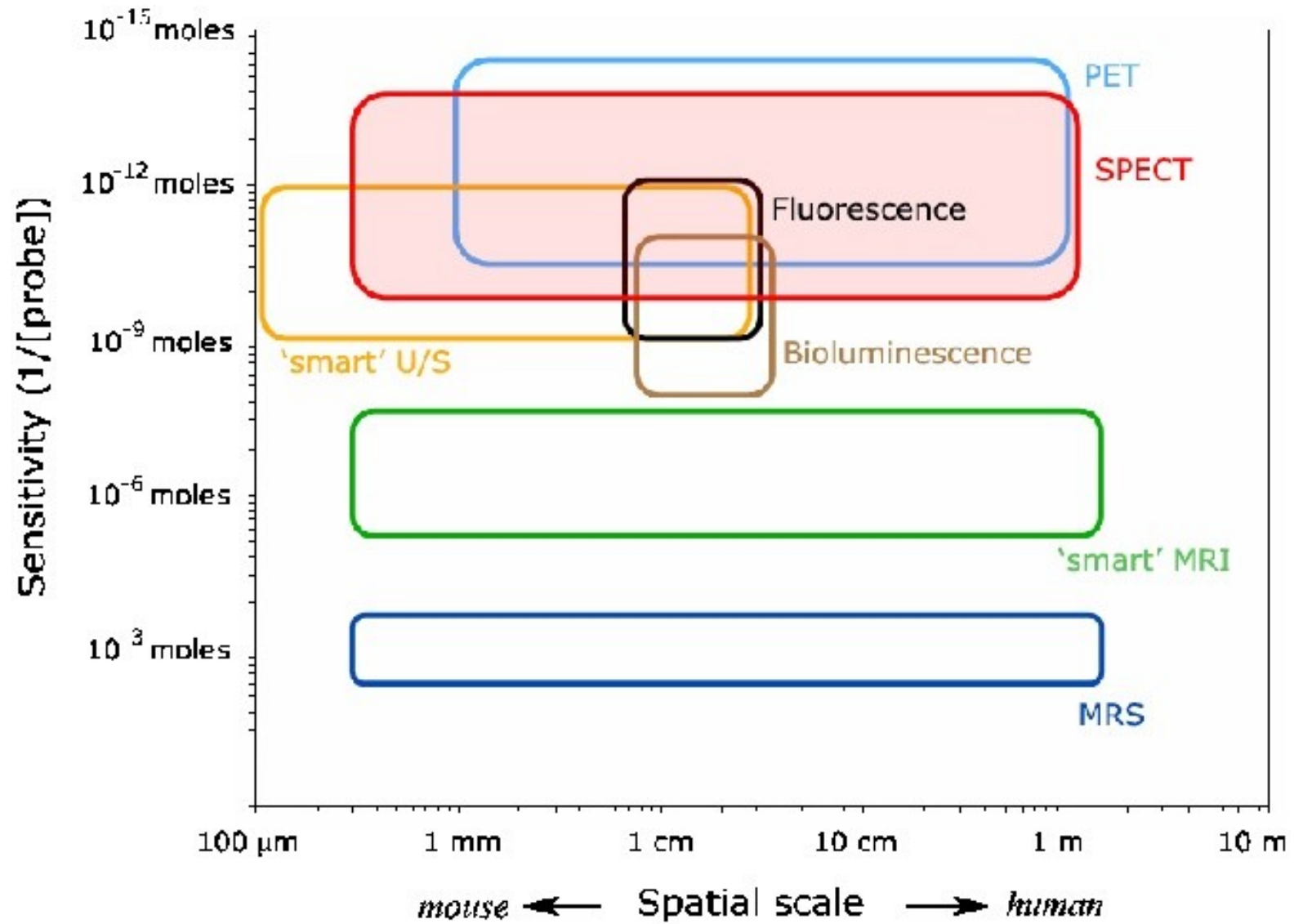




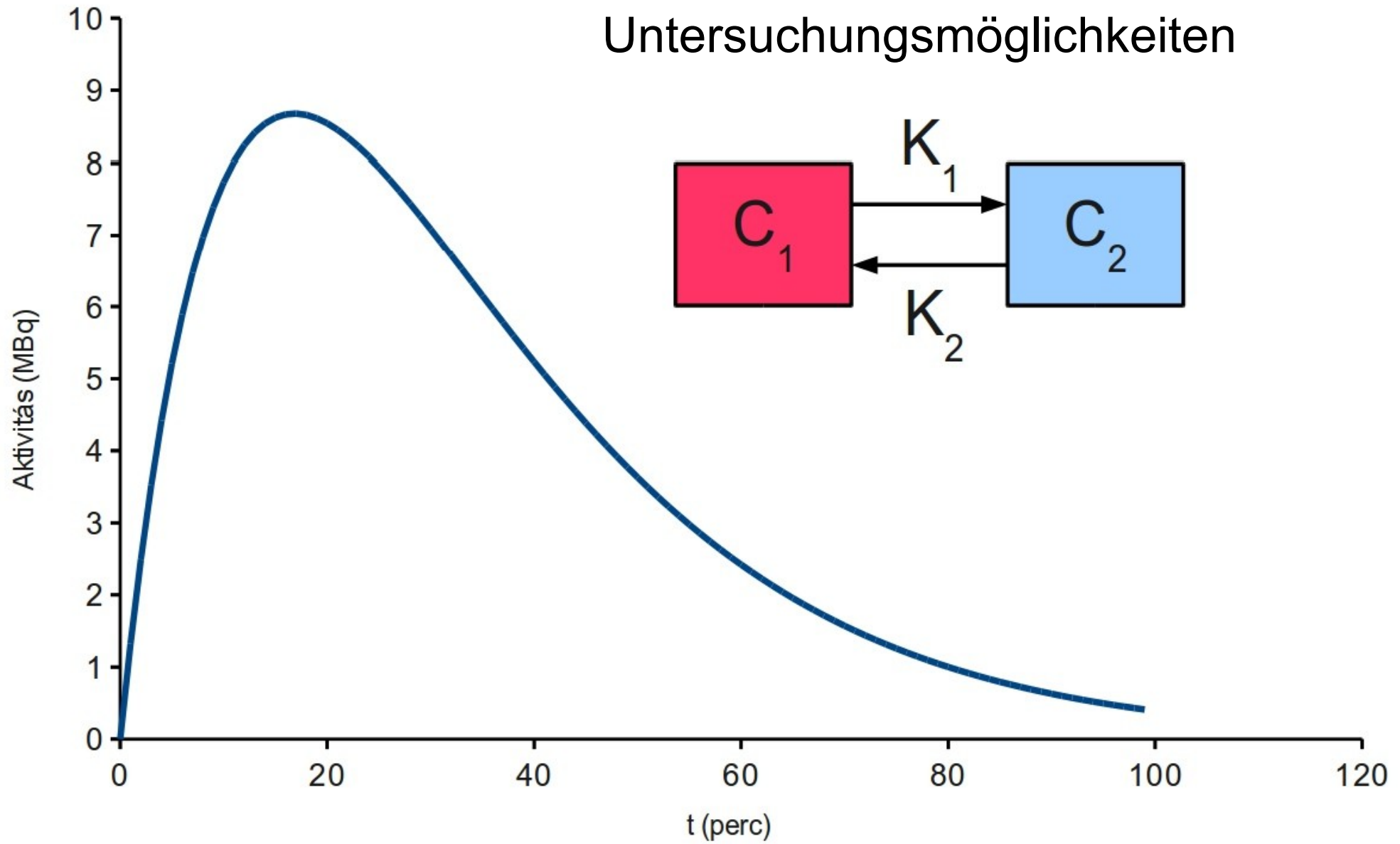
Multimodale Bildgebung (PET/CT)

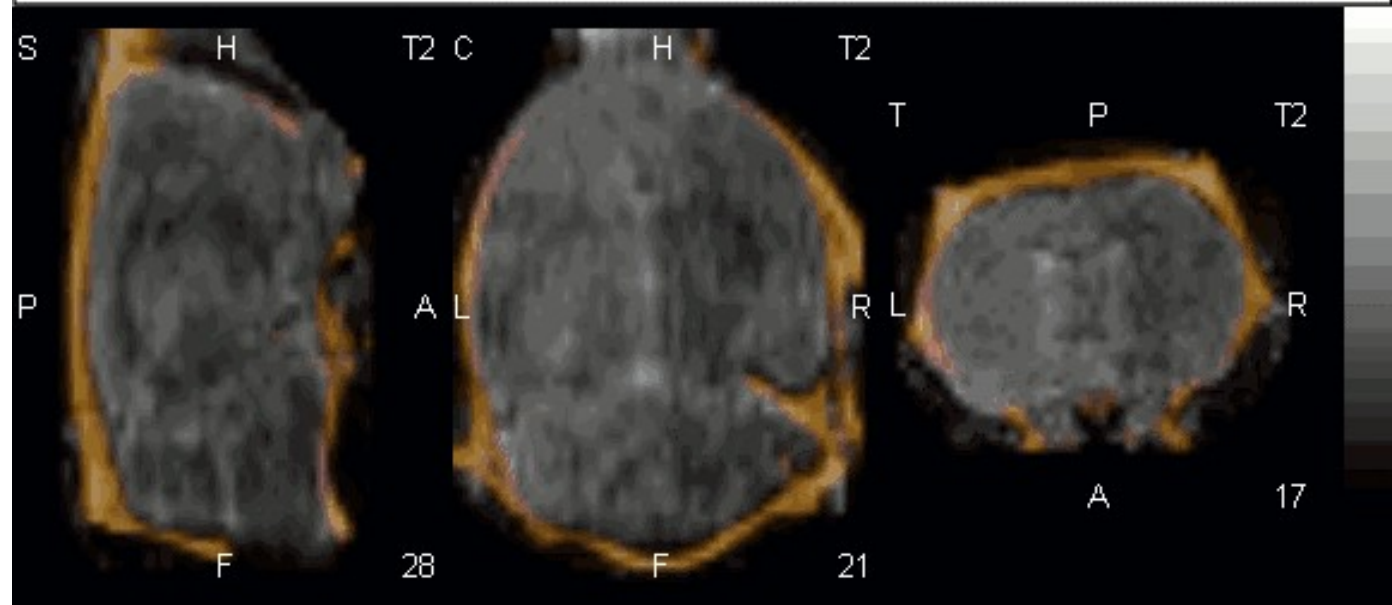
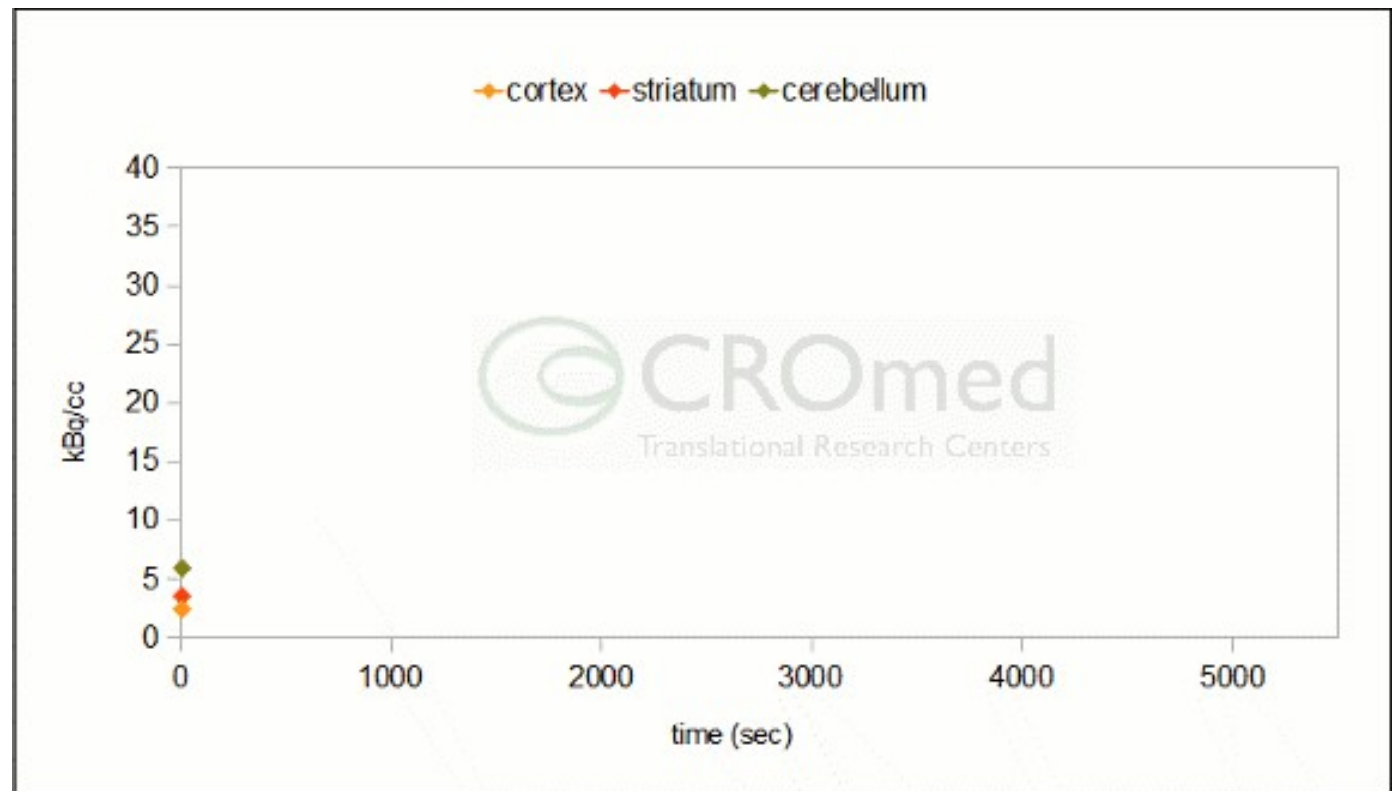


benötigte Stoffmengen



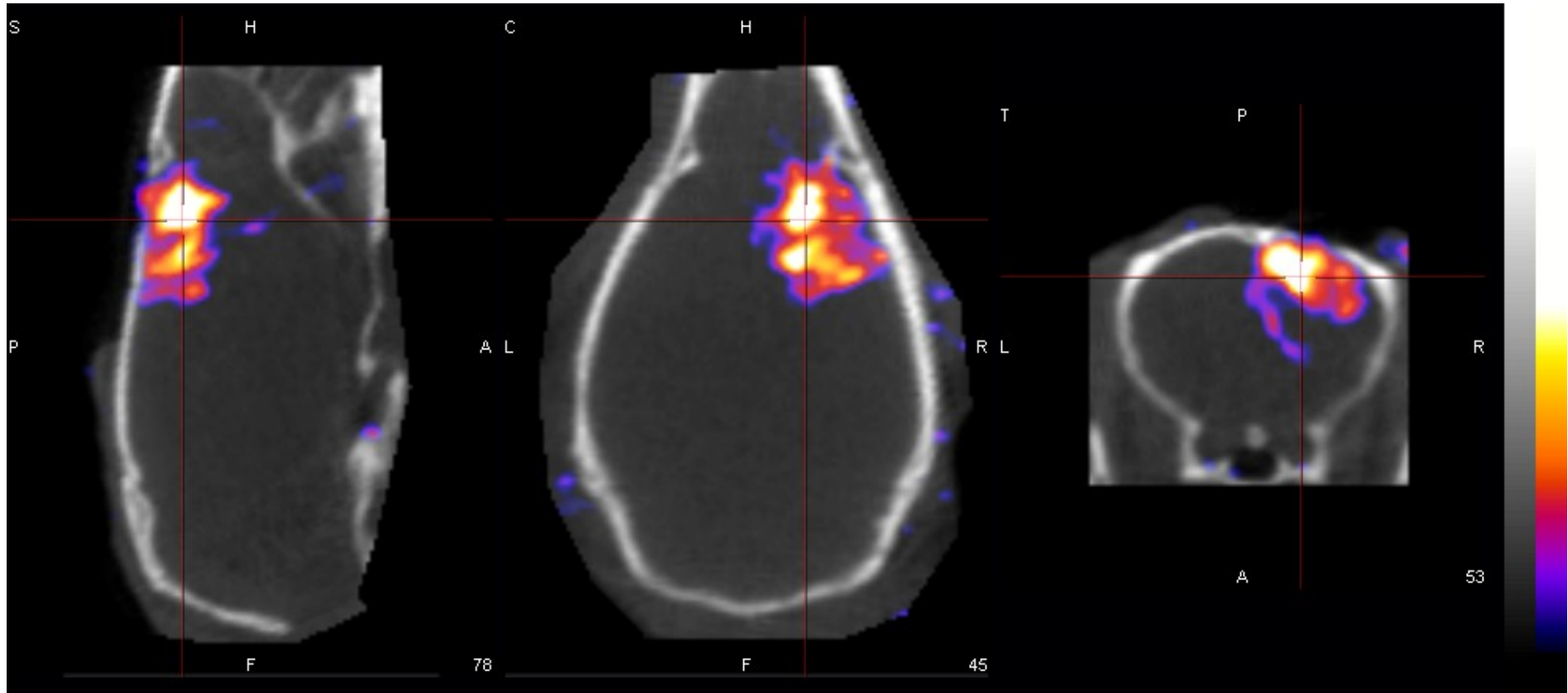
farmakokinetische Untersuchungsmöglichkeiten





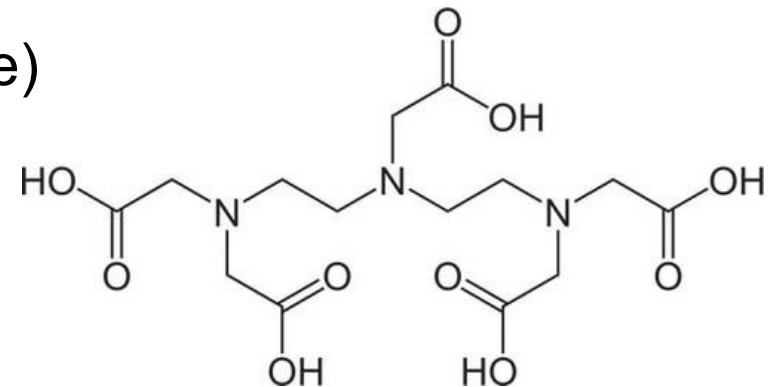
PET Isotope	SPECT Isotope
F-18 , C-11	Tc-99m, Tl-201, I-123, I-125, I-131 , In-111

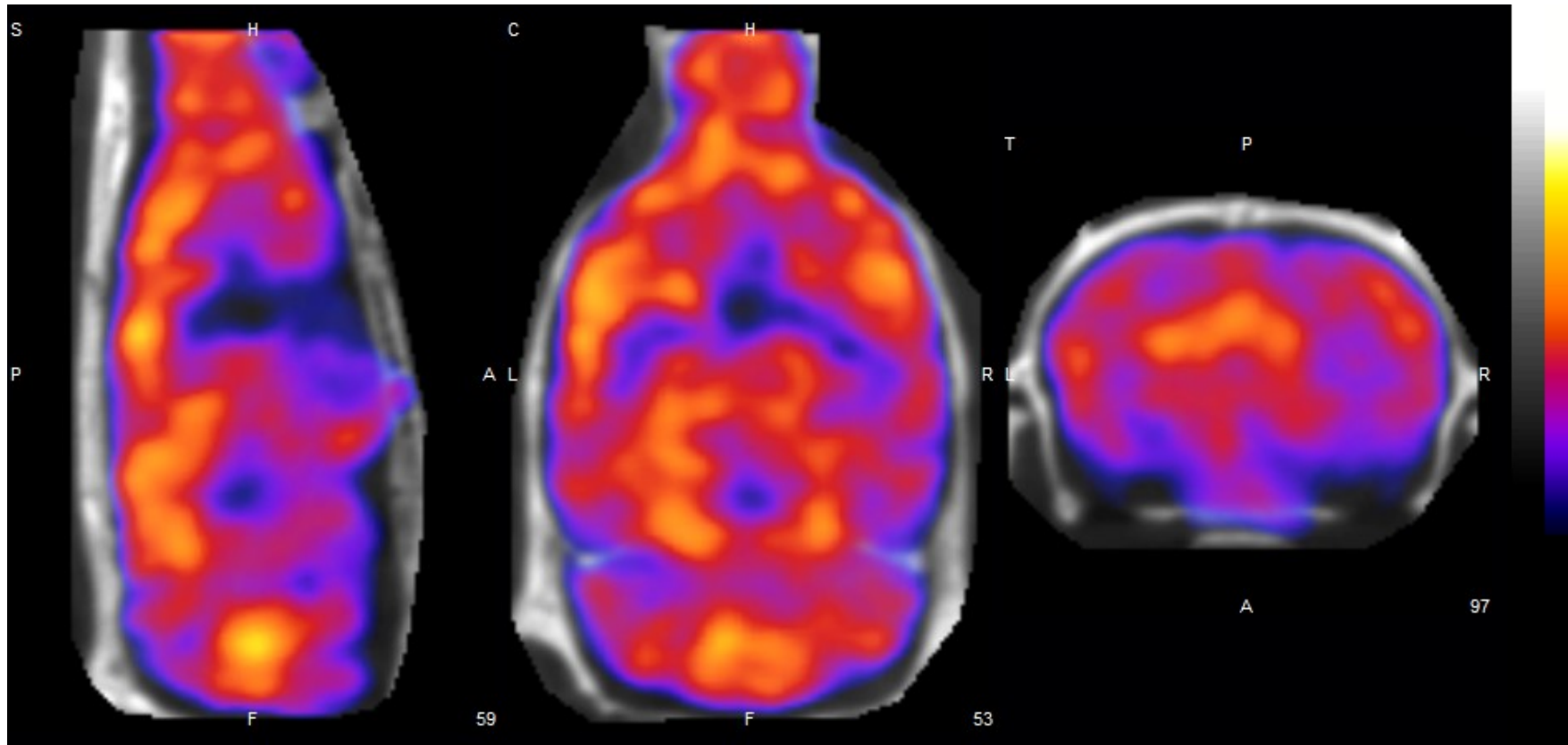
Auswahl: Lebensdauer, Aktivität, Toxikologie,
chemische Möglichkeiten (Synthese, Bindungen)



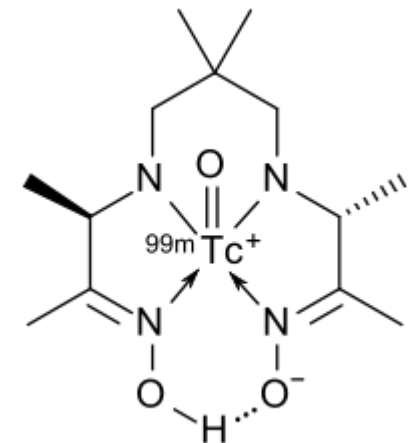
DTPA (diethylene-triamine-pentaessigsäure)

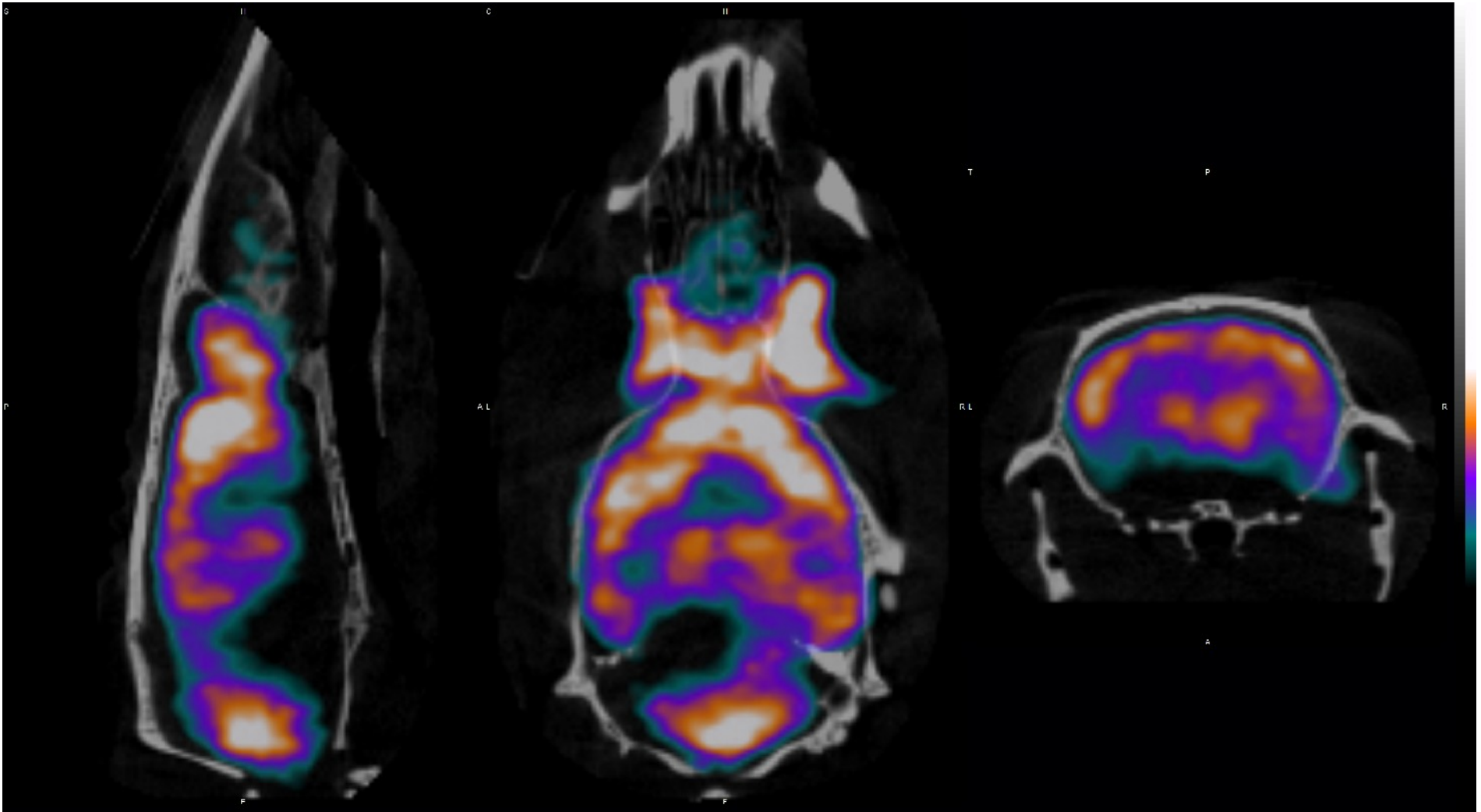
Gehirn-Endothelschädigungen: hier kann DTPA-Isotop komplex ins Gehirn eintreten.
(Aktivität = Beschädigung)





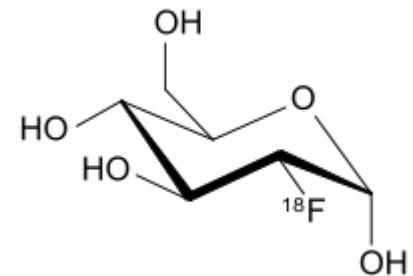
HMPAO (hexamethylpropylene amine oxime)



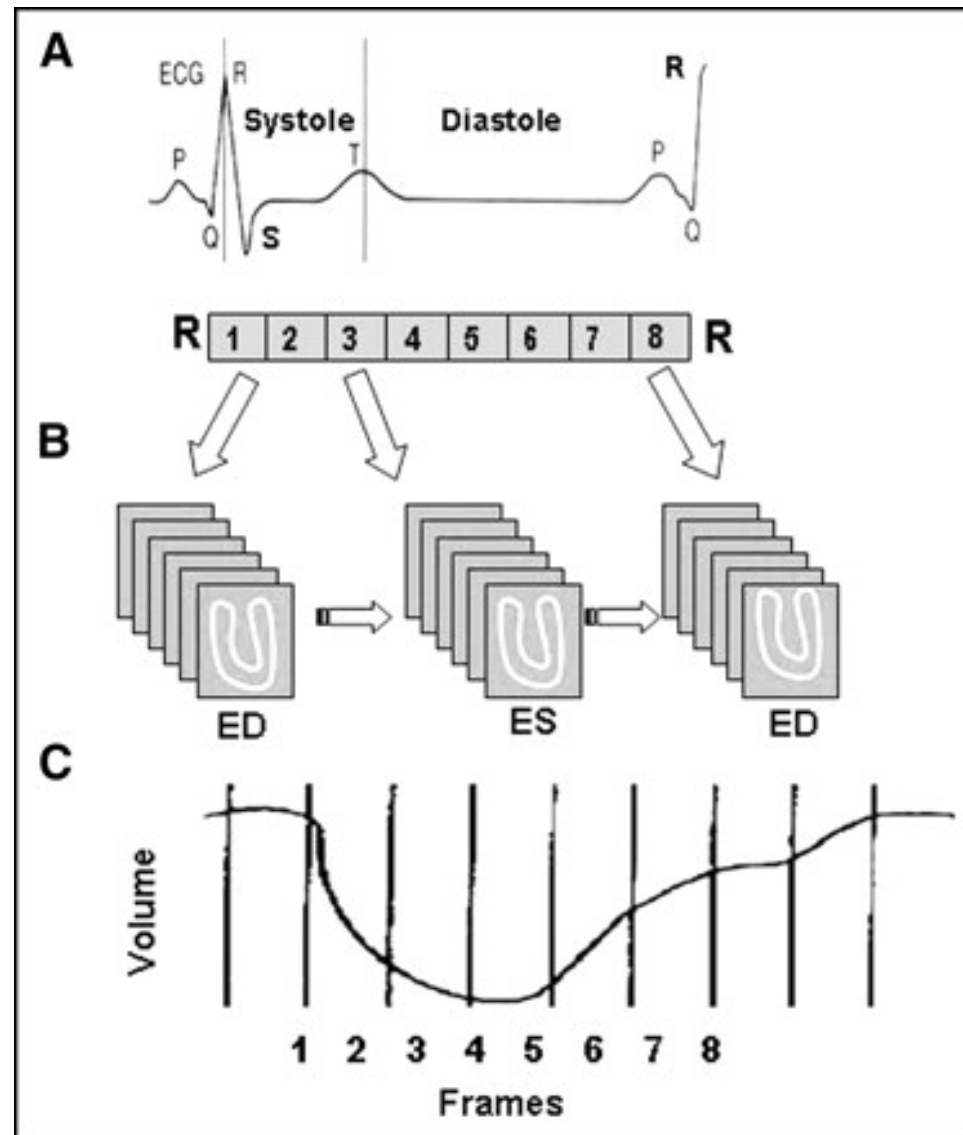


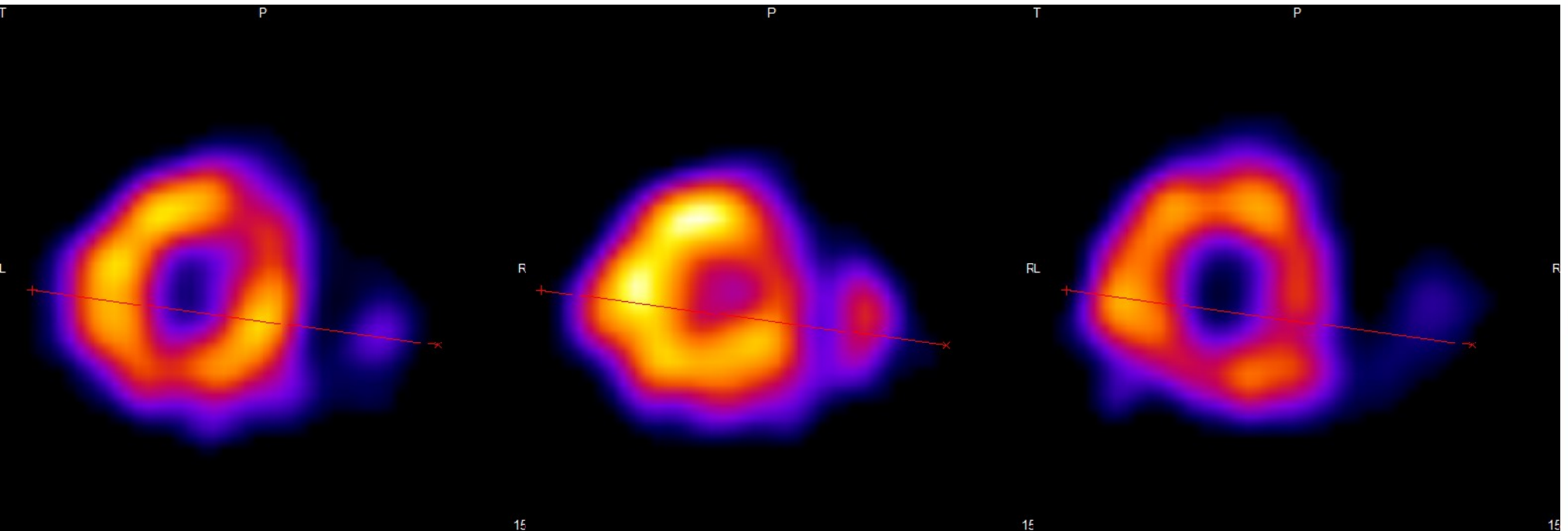
FDG (fluoro-dezoxi-glükóz)

PET, Glucose-Verbrauch. Benutzt auch für Tumor-Klassifizierung

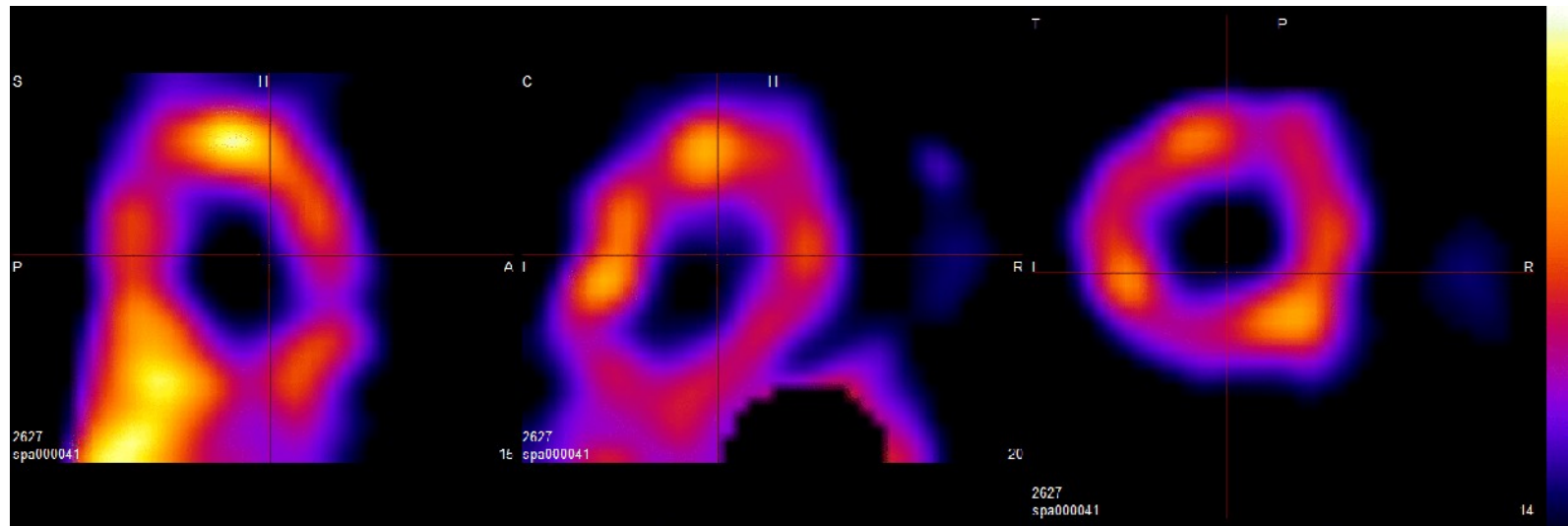
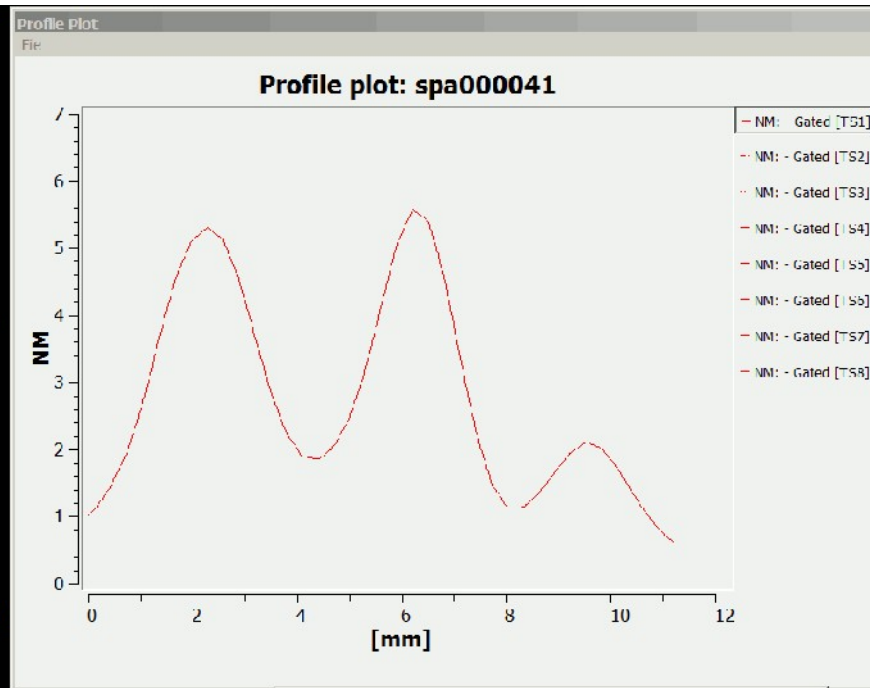
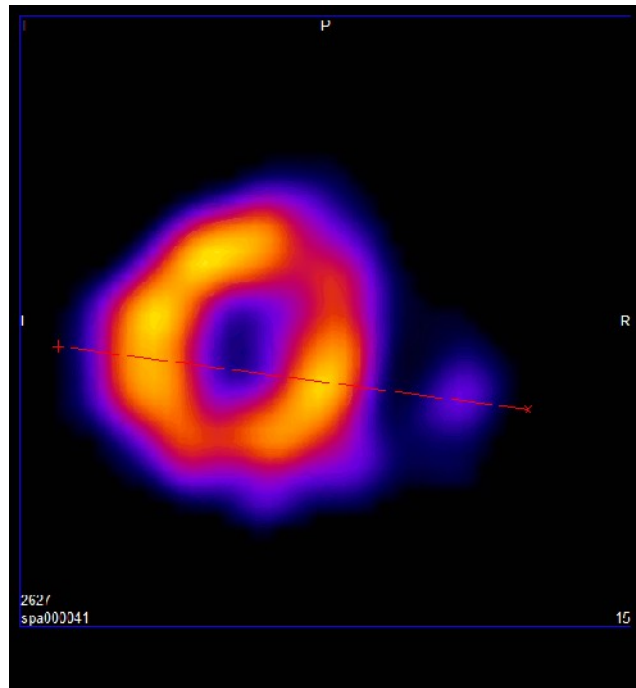


EKG-Synchronisierung





Tc-MIBI Kardiologie



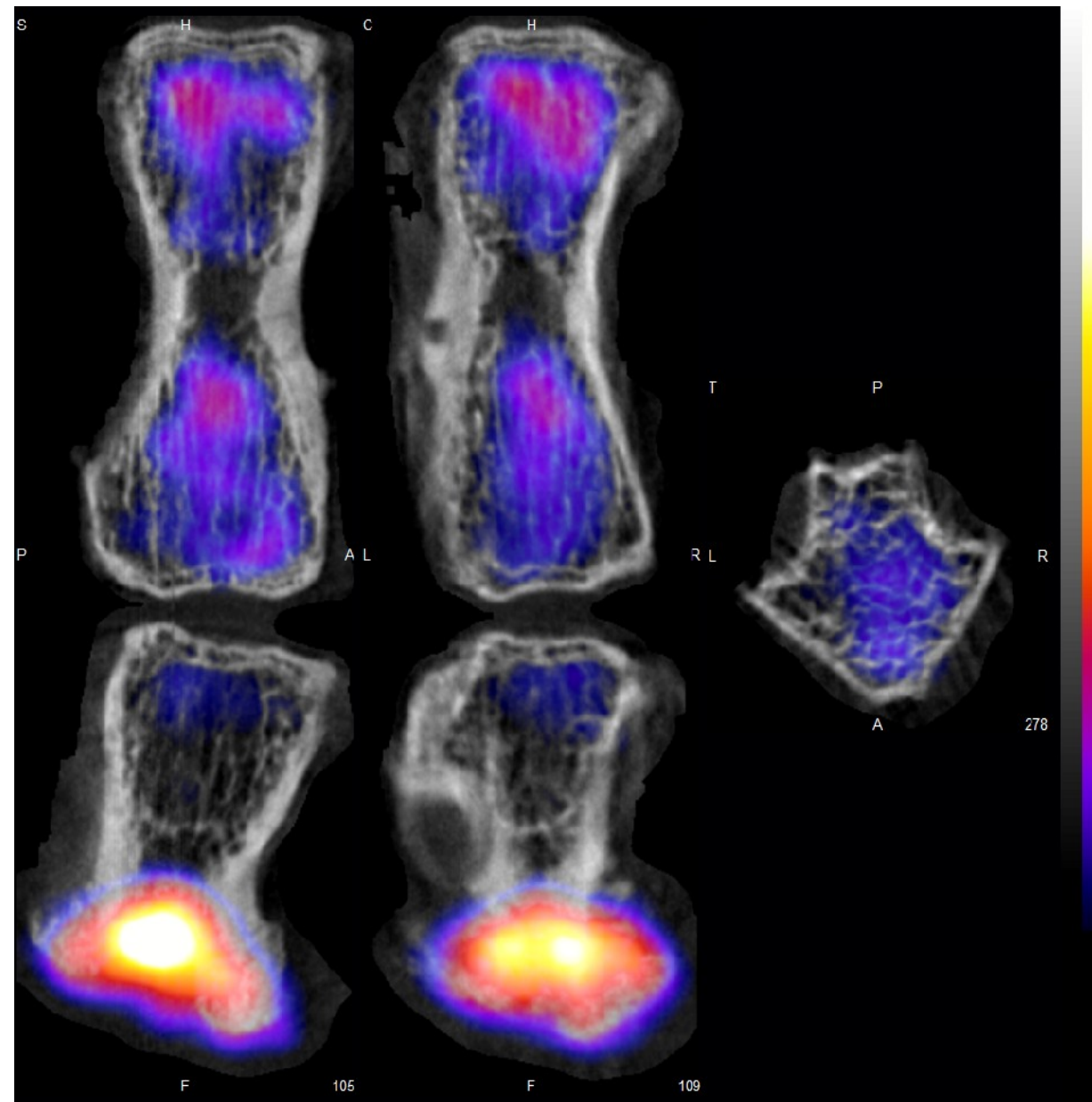
Semmelweis
NIVIC

Nanobiotechnology and In Vivo Imaging Center

MDP (methilene-diphosphate)

Tc-MDP bringt Tc zu freien Hydroxyapathite, also zu Knochenbrüche.

die Methode ist bei Kleinkinder Empfohlen.



Multimodale bildgebende Verfahren: sentinel Lymphknotenmodell

PET/SPECT für Funktion, CT für Orientierung

