



Supplemental Figure 1.

Tau imaging studies with ^{18}F -flortaucipir PET images in severely cognitively impaired patients, two AD, one MCI, showing the three different pathological subtypes of AD: the typical presentation (left column, 76 y.o. female $\text{A}\beta^+$ AD, MMSE 16) with widespread retention in both MTL and neocortical areas, limbic sparing (center column, 81 y.o. male $\text{A}\beta^+$ MCI, MMSE 23) where tracer retention is primarily in the neocortex, and limbic predominant subtype (right column, 69 y.o. male $\text{A}\beta^+$ AD, MMSE 20) with tracer retention mostly restricted to the mesial temporal cortex.

Supplemental Table 1. Tau imaging tracers used in clinical studies

Tracer	Off target binding	Non-specific/non-tau binding Other issues
¹⁸ F-THK523 ^{1,2}	Basal ganglia	low signal to noise
¹⁸ F-T807 ³⁻⁶ (a.k.a. AV1451, Flortaucipir, TAUVID)	Choroid plexus, anterior midbrain, basal ganglia (meninges)	~60% non-specific binding in A-CU
¹⁸ F-T808 ⁷	Basal ganglia, choroid plexus, anterior midbrain	Defluorination
¹¹ C-PBB3 ^{8-10@}	Longitudinal sinus, basal ganglia (choroid plexus)	@radiolabeled lipophilic metabolite (binding to other non-tau targets?)
¹⁸ F-THK5105/ ¹⁸ F-THK5137 ¹¹⁻¹³	Basal ganglia, anterior midbrain	(binding to MAO-B?)
¹⁸ F-RO948 ¹⁴⁻¹⁶	Calvarium (choroid plexus, basal ganglia) anterior midbrain	(defluorination)
¹⁸ F-GTP1 ^{17,18}	Choroid plexus (basal ganglia) anterior midbrain	
¹⁸ F-THK5351 ^{19-21*}	Basal ganglia, anterior midbrain	*mainly binding to MAO-B
¹⁸ F-PI2620 ²²⁻²⁴	Longitudinal sinus (scalp)	
¹⁸ F-MK6240 ²⁵⁻²⁸	Meninges (anterior midbrain) Calvarium	(defluorination)
¹⁸ F-Lanzoprazole ^{29,30 #}		#low binding to tau in vivo
¹⁸ F-PM-PBB3 ³¹	Choroid plexus, anterior midbrain (basal ganglia)	
¹⁸ F- JNJ-64326067 ^{32,33}		

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