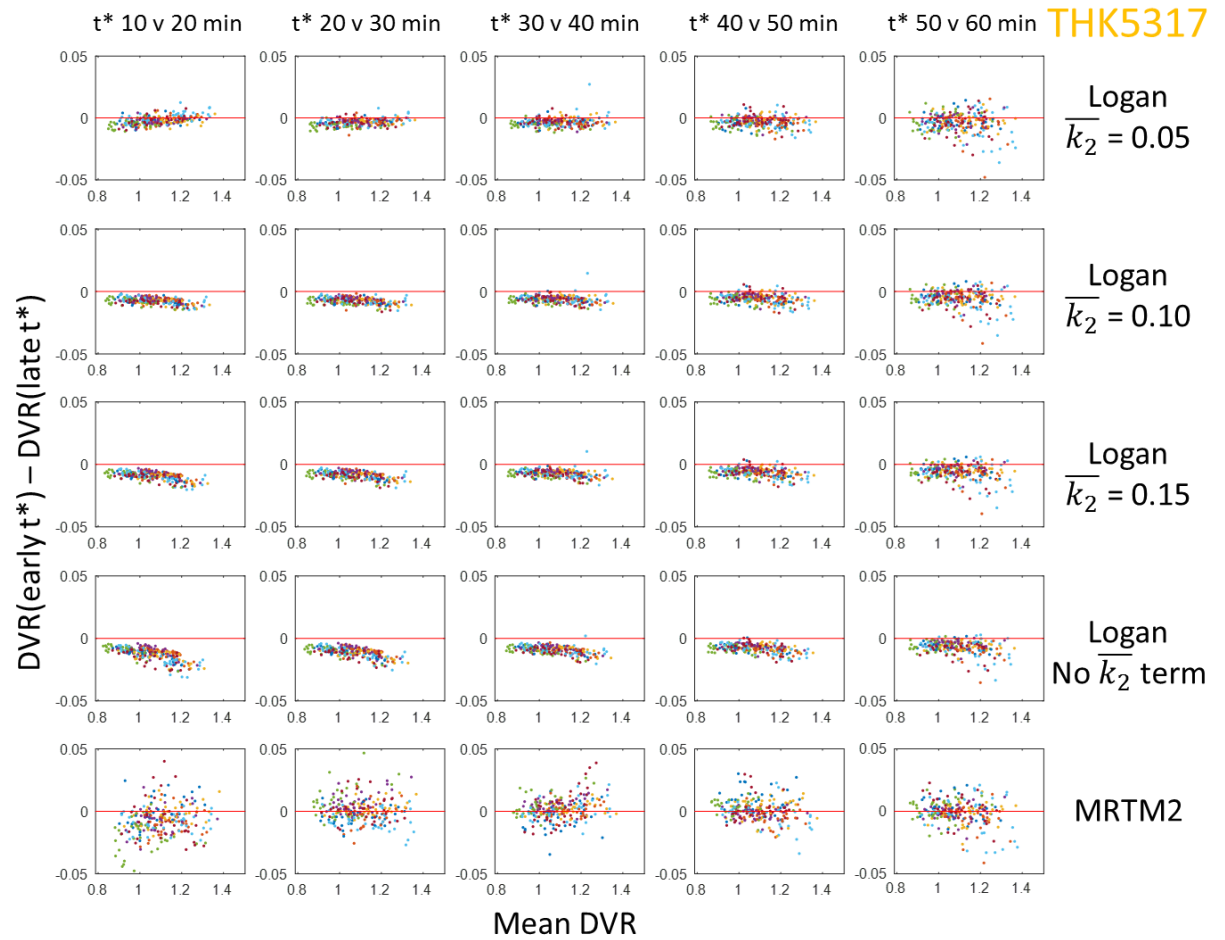
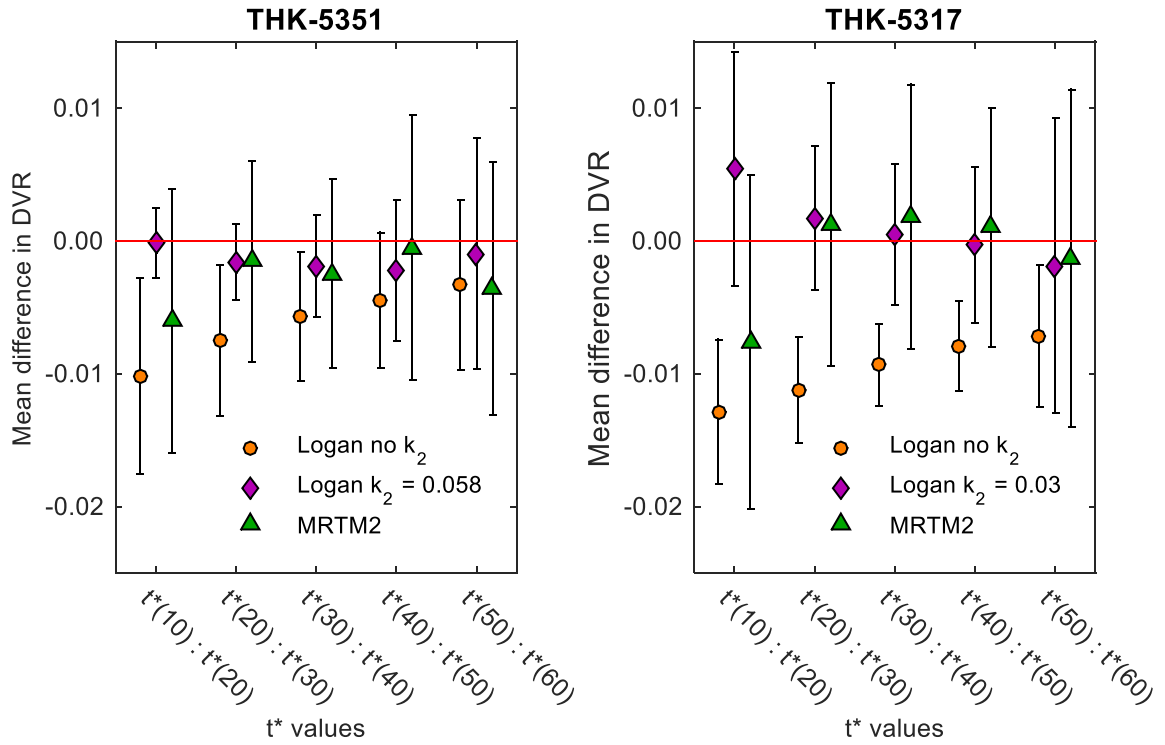


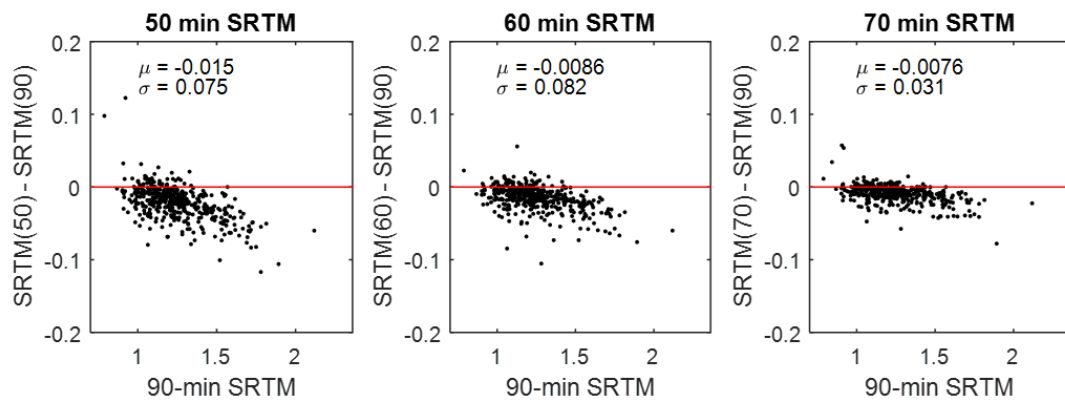
SUPPLEMENTAL FIGURE 1. Bland-Altman plots comparing DVR estimates with subsequent t^* values for Logan and MRTM2 for THK-5351. Each color represents an individual subject.



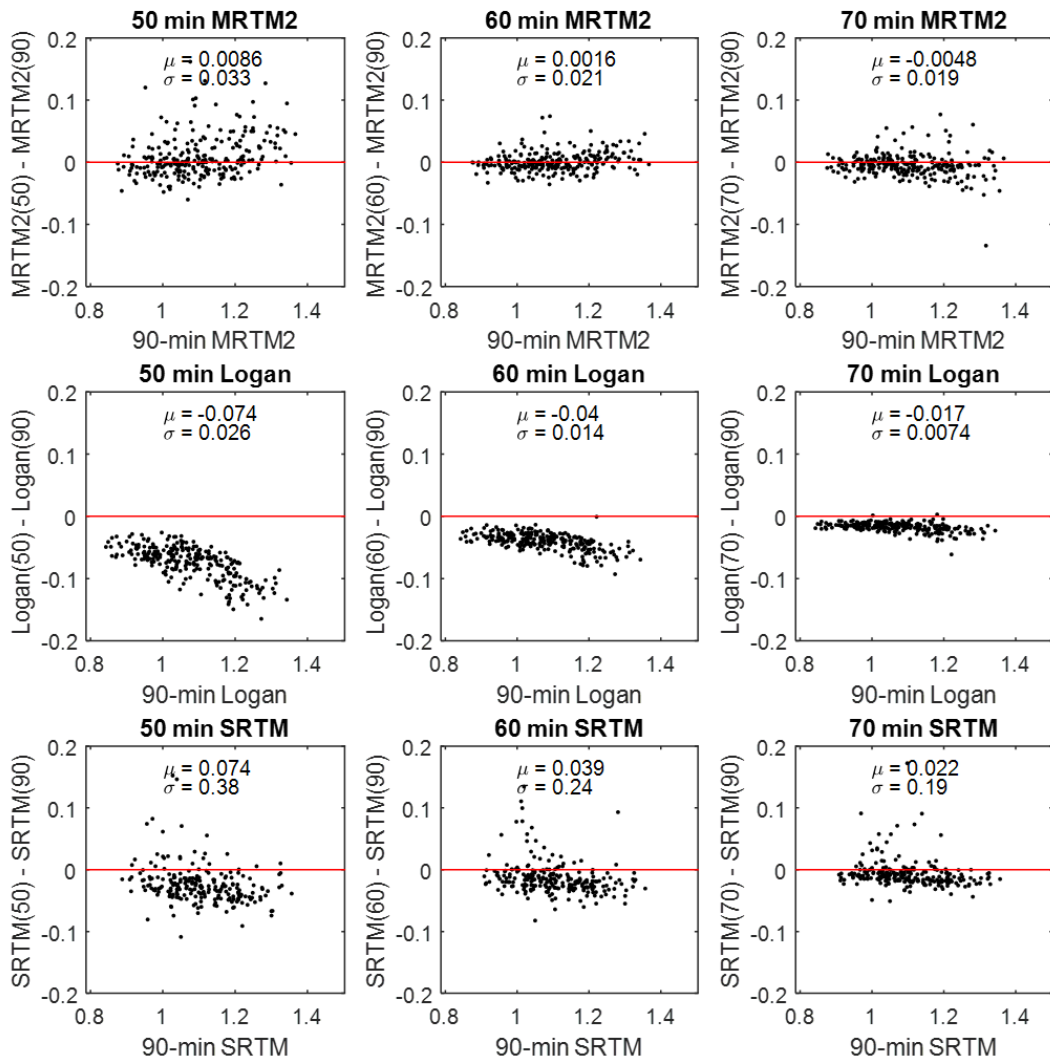
SUPPLEMENTAL FIGURE 2. Bland-Altman plots comparing DVR estimates with subsequent t^* values for Logan and MRTM2 for THK-5317. Each color represents an individual subject.



SUPPLEMENTAL FIGURE 3. Effects of t^* on DVR estimation for THK-5351 and THK-5317. Points represent mean difference between DVR estimates using the t^* values (e.g. $t^*(10):t^*(20)$ compares DVR for $t^*=10$ min minus DVR for $t^*=20$ min) with error bars representing the standard deviation taken across all subjects and ROIs.

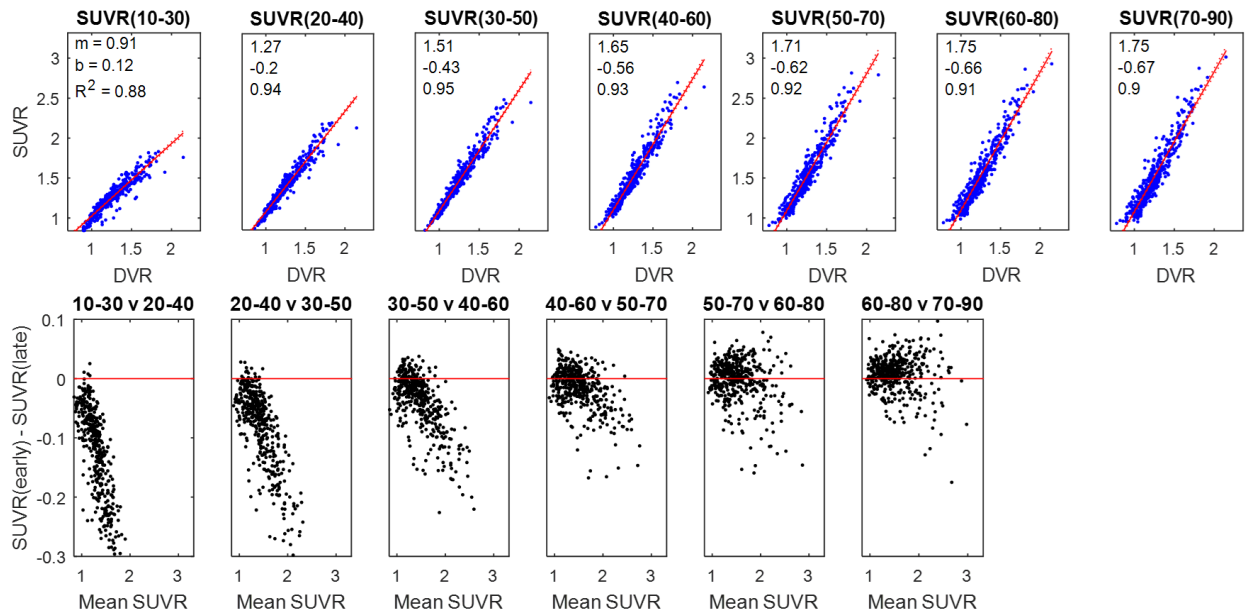


SUPPLEMENTAL FIGURE 4. Bland-Altman plots comparing the effects of shortening the PET scan duration for THK-5351 using SRTM.



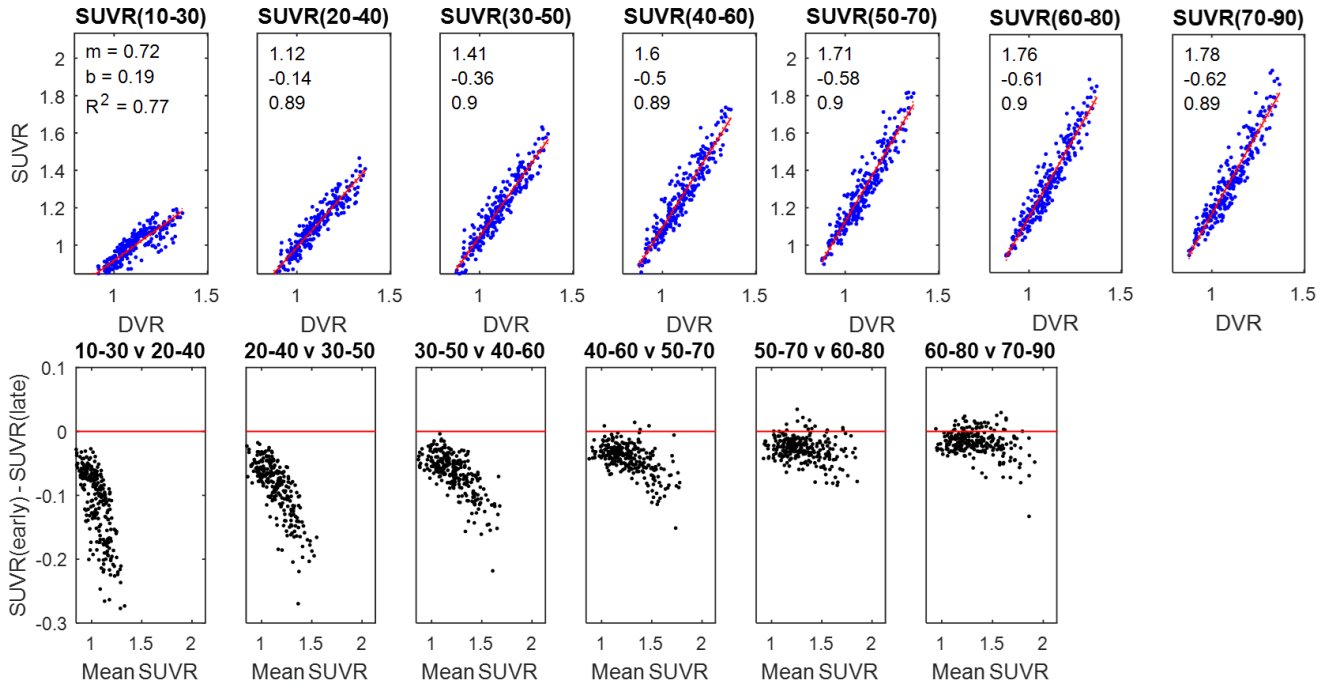
SUPPLEMENTAL FIGURE 5. Bland-Altman plots comparing the effects of shortening the PET scan duration on DVR estimation for THK-5317.

THK5351 SUVR Stability



SUPPLEMENTAL FIGURE 6. Comparison of SUVR windows with MRTM2 DVR by linear regression (top) and stepwise comparisons of temporally adjacent SUVR windows using Bland-Altman plots (bottom) for THK-5351.

THK5317 SUVR Stability



SUPPLEMENTAL FIGURE 7. Comparison of SUVR windows with MRTM2 DVR by linear regression (top) and stepwise comparisons of temporally adjacent SUVR windows using Bland-Altman plots (bottom) for THK-5317.

Sex	Age (yrs)	Parental History	APOE-ε4 Status	Cognitive Status	MMS E	PiB Status	Δt PiB THK-5317 (days)	Δt PiB THK-5351 (days)	¹⁸ F-THK-5317 ID (MBq)	¹⁸ F-THK-5351 ID (MBq)
M	73	+	-	CD	29	+	38	-292	196.1	203.5
F	70	+	+	CS	29	+	12	-470	199.8	395.9
F	67	+	+	AD	MoC A: 8	+	1	-523**	203.5	403.3
F	75	-	+	CD	27	+	7	-447	199.8	196.1
M	62	-	-	CS	30	+	7	-333	199.8	395.9
F	82	+	+	AD	17	+	-2		199.8	
F	81	-	-	MCI	29	+	2		203.5	
M	73	-	+	CS	30	-	3	-257	203.5	203.5
F	65	+	+	CD	29	+	370	-1	199.8	399.6
F	74	+	-	CD	28	+	2	-239	203.5	203.5
M	80	+	-	MCI	28	+	0	-342	199.8	392.2
F	53	+	+	CS	30	-	16	-306	199.8	395.9
F	57	-	+	CS	30	-	8	-298	199.8	399.6
M	70	-	-	AD*	MoC a: 20	-	-5		203.5	
M	85	NA	+	MCI	24	-		-5		199.8
F	61	+	+	AD	MoC a: 20	+		-1		203.5
M	74	+	+	AD	MoC a: 13	+		-7		203.5
M	71	-	+	CD	29	-		-7		399.6
F	73	-	+	CD	30	-		-4		392.2
F	68	-	+	CS	30	-		-25		384.8
M	71	+	-	NA	28	-		96		384.8
M	73	NA	NA		30	-		-1		392.2
F	68	+	+	AD	25	+		0		399.6
M	68	+	+	CD	30	-		-5		403.3
M	72	+	+	CS	30	+		-3		399.6
F	75	-	-	CS	30	-		-42		392.2
M	67	+	-	CD	29	-		61		399.6
F	65	-	+	CS	30	-		61		395.9

SUPPLEMENTAL TABLE 1. Summary statistics for the study participants. A negative time between PiB and THK scans indicates the PiB scan occurred prior to the THK scan, whereas a blank indicates the subject was not scanned with that THK compound. *Subject 14 was diagnosed as probable AD prior to PET imaging, but did not indicate elevated THK or PiB binding and is likely a non-AD dementia. **Significant motion during THK-5351 PET prevented estimation of binding. CS: cognitively stable, CD: cognitively declining, MCI: amnesic mild cognitive impairment, AD: probable AD evaluated prior to imaging data