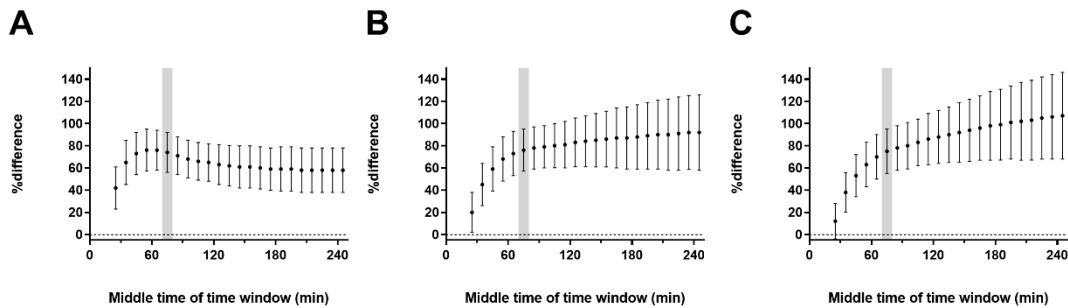**Supplemental Figure 1:** Bland-Altman plots between 1TC BP_{ND} and SUVR-1 values in (A) the hippocampus of HSs and ADs and (B) contralateral and ipsilateral hippocampus of EPs.

Supplemental Figure 2: Mean±SD of %difference between TTP and V_T values in (A) centrum semiovale, (B) frontal cortex, and (C) hippocampus. The 60-90 min time window is marked in gray.

Supplemental Table 1: Demographics of neuropsychiatric subjects.

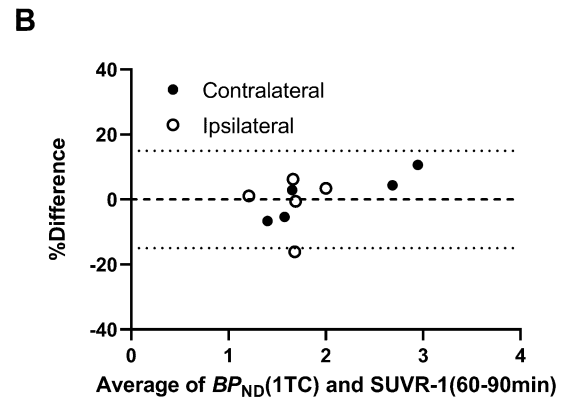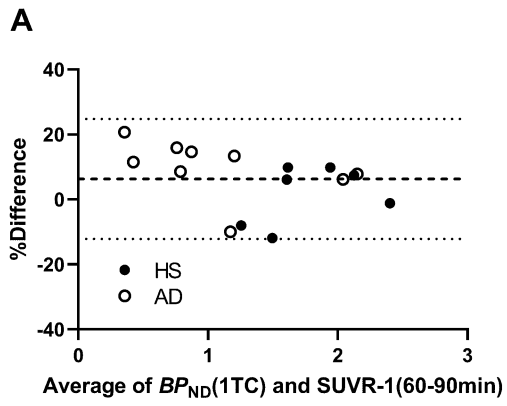| Diagnosis	Number
Alzheimer's disease (2)	11
Bipolar	1
Cannabis dependence	9
Cocaine dependence	14
Epilepsy	5
Major Depressive Disorder (3)	26
Parkinson's disease (4)	2
PTSD	10
Schizophrenia	12
Healthy (1-5)	51

The references show the data that have been published elsewhere.

Supplemental Table 2: Comparisons between TTP and V_T(90 min) and SUVR-1 and BP_{ND}(90 min) in neuropsychiatric subjects (13 regions per subject, n = 90).

Time window for TTP and SUVR-1	$x = V_T$, y = TTP			$x = BP_{ND}$, y = SUVR-1		
	Slope	Intercept	R^2	Slope	Intercept	R^2
10-40 min	1.04	2.20	0.71	0.64	0.39	0.81
20-50 min	1.32	1.84	0.75	0.72	0.29	0.88
30-60 min	1.49	1.32	0.78	0.79	0.24	0.93
40-70 min	1.61	0.84	0.80	0.85	0.19	0.94
50-80 min	1.70	0.47	0.81	0.91	0.13	0.93
60-90 min	1.78	0.16	0.81	0.96	0.06	0.93

Supplemental Table 3. %difference of TTP vs. V_T(90 min) and SUVR-1 vs. BP_{ND}(90 min) in neuropsychiatric subjects (n = 90)

Parameter	Regions	10-40 min	20-50 min	30-60 min	40-70 min	50-80 min	60-90 min
TTP vs. V_T(90 min)	Cerebral cortex	14 ± 19	40 ± 23	54 ± 24	64 ± 25	72 ± 25	78 ± 26
	Subcortical	22 ± 22	47 ± 25	60 ± 25	68 ± 25	74 ± 26	79 ± 27
	Cerebellum	29 ± 21	53 ± 24	65 ± 25	72 ± 25	78 ± 25	82 ± 26
	Centrum semiovale	42 ± 22	65 ± 25	73 ± 25	77 ± 25	79 ± 26	81 ± 28
	Whole brain	19 ± 21	44 ± 24	58 ± 25	67 ± 25	73 ± 26	79 ± 26
SUVR-1 vs. BP_{ND}(90 min)	Cerebral cortex	-25 ± 8	-20 ± 7	-14 ± 6	-9 ± 6	-5 ± 7	-2 ± 7
	Subcortical	-19 ± 13	-15 ± 10	-11 ± 8	-7 ± 7	-4 ± 7	-1 ± 8
	Cerebellum	-12 ± 8	-10 ± 6	-7 ± 5	-4 ± 5	-1 ± 6	2 ± 7
	Whole brain	-22 ± 11	-17 ± 9	-12 ± 7	-8 ± 7	-4 ± 7	-1 ± 8

Data are mean ± SD over all subjects and over all regions in each catego

A

B

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