



## Supplementary Information for

In vivo evidence for dysregulation of mGluR5 as a biomarker of suicidal ideation in PTSD

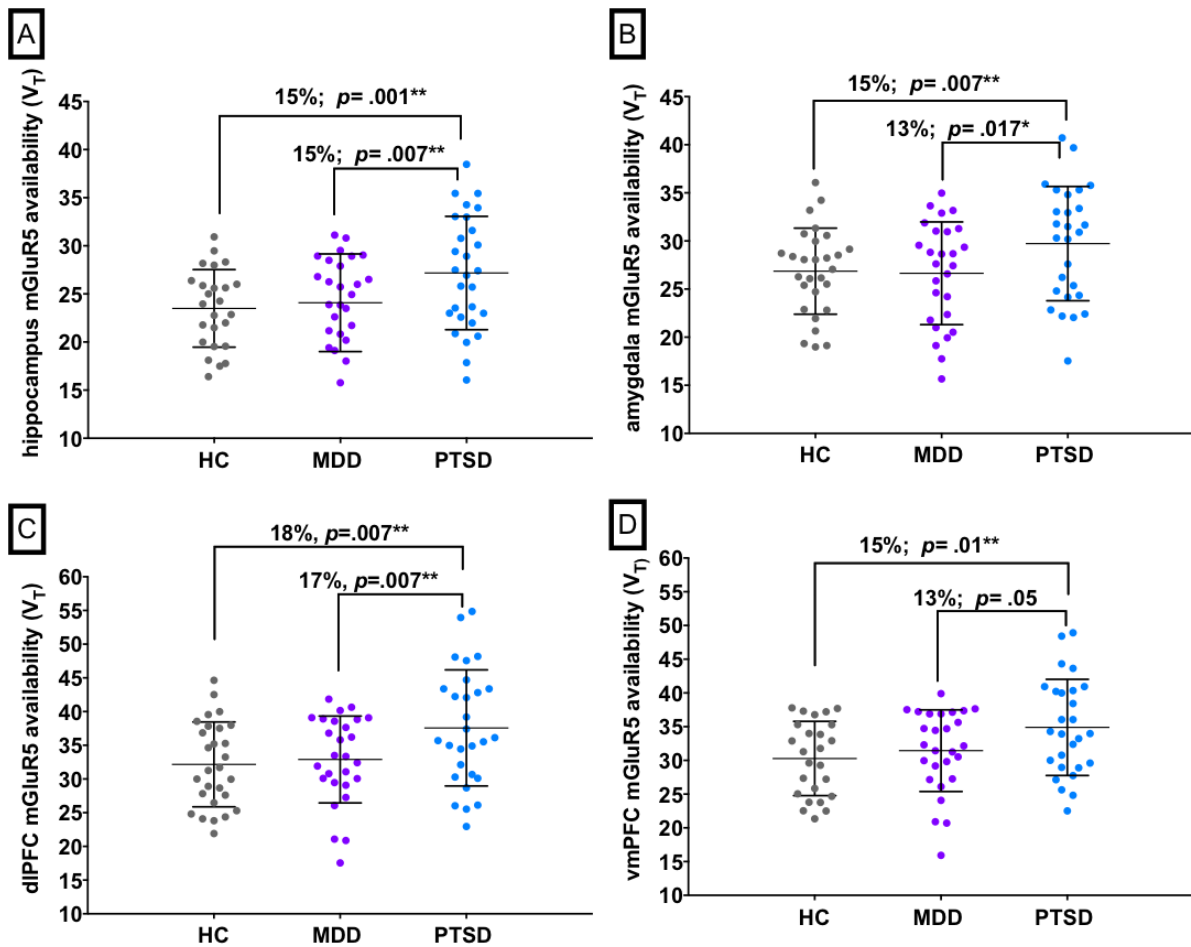
Margaret T. Davis, Ansel Hillmer, Sophie E. Holmes, Robert H. Pietrzak, Nicole DellaGioia, Nabeel Nabulsi, David Matuskey, Gustavo Angarita-Africano, Richard E. Carson, John H. Krystal, Irina Esterlis

Corresponding author: Irina Esterlis, Ph.D.

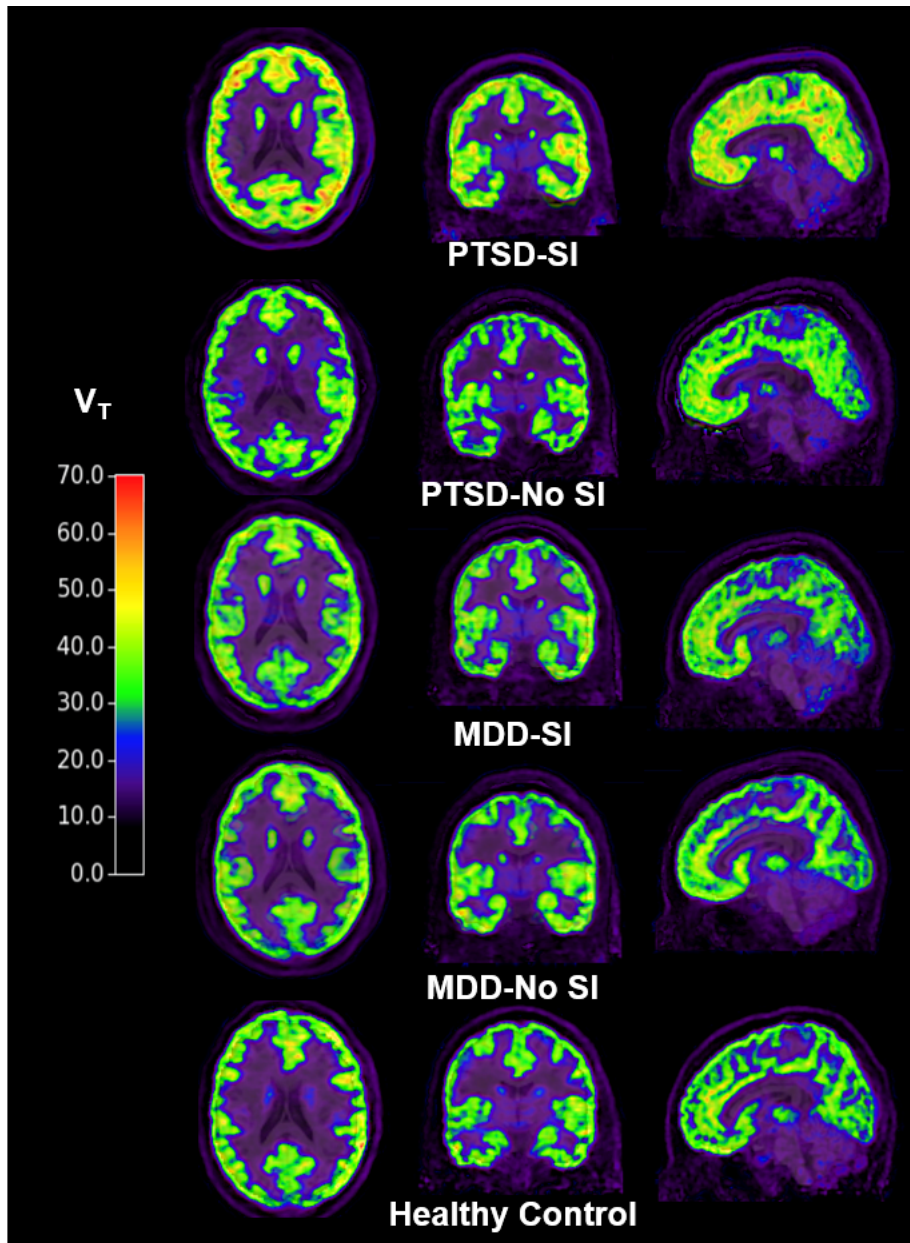
Email: [irina.esterlis@yale.edu](mailto:irina.esterlis@yale.edu)

### **This PDF file includes:**

Figs. S1-S2  
Table S1



**Figure S1.** Metabotropic glutamate receptor 5 (mGluR5) compared across diagnostic groups in A. hippocampus; B. amygdala; C. dorsolateral prefrontal cortex; D. orbitofrontal cortex; E. ventromedial prefrontal cortex.  $^{**}p < .01$ ;  $^*p < .05$ , did not survive Bonferroni correction.



**Figure S2.** Visual representation of average parametric  $V_T$  values in individuals with posttraumatic stress disorder (PTSD) and scan-day suicidal ideation (SI), PTSD without SI, major depressive disorder (MDD) with SI, MDD without SI, and matched healthy controls.  $V_T = [^{18}\text{F}]\text{FPEB}$  volume of distribution.

Table S1. Regional [<sup>18</sup>F]FPEB V<sub>T</sub> and significance values across groups

Region	HCs (n=29)	MDD (n=29)	PTSD (n=29)	Cohen's d		p-value	
				HC/ PTSD	MDD/ PTSD	HC/ PTSD	MDD/ PTSD
dIPFC	32.16 (6.29)	33.74 (7.75)	38.25 (8.19)	0.83	0.56	<.001	.007
vmPFC	31.45 (6.78)	32.17 (7.10)	35.49 (8.35)	0.53	0.42	.01	.05
OFC	29.17 (5.82)	30.62 (7.19)	34.68 (7.12)	0.84	0.56	.001	.007
Amygdala	26.86 (4.47)	27.23 (6.09)	32.06 (6.08)	0.59	0.47	.007	.017
Hippocampus	23.86 (4.38)	24.62 (5.72)	27.58 (6.19)	0.69	0.50	.001	.007

dIPFC, dorsolateral prefrontal cortex; OFC, orbitofrontal cortex (OFC); vmPFC, ventromedial prefrontal cortex; ACC, anterior cingulate cortex. Error bars represent standard deviation. Mean (SD) reported.