Thiamine diphosphate reduction strongly correlates with brain glucose hypometabolism in Alzheimer's disease, while amyloid deposition does not

Shaoming Sang[1#], Xiaoli Pan[1#], Zhichun Chen[1], Fan Zeng[5], Shumei Pan[1], Huimin Liu[1], Lirong Jin[1], Guoqiang Fei[1], Changpeng Wang[1], Shuhua Ren[3], Fangyang Jiao[3], Weiqi Bao[3], Weiyan Zhou[3], Yihui Guan[3], Yiqiu Zhang[4], Hongcheng Shi[4], Yanjiang Wang[5], Xiang Yu[2], Yun Wang[1]*, Chunjiu Zhong[1]*

Supplementary Figures

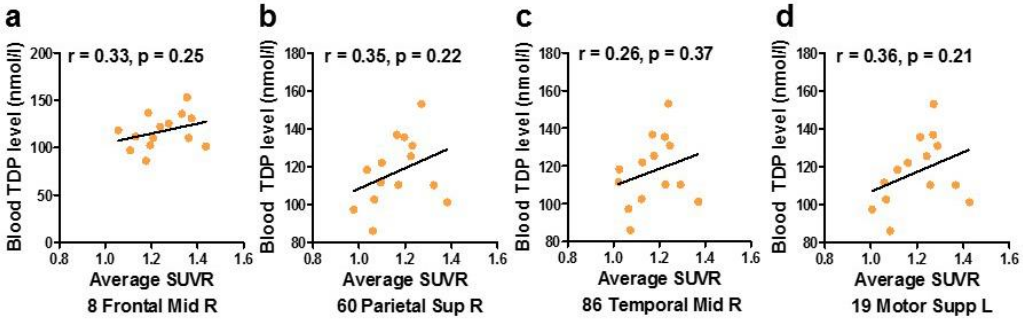

Figure S1. Blood TDP levels do not significantly correlate with brain glucose metabolism in control subjects. a-d. Correlation between SUVRs of representative brain regions and blood TDP levels in control subjects (N = 14).

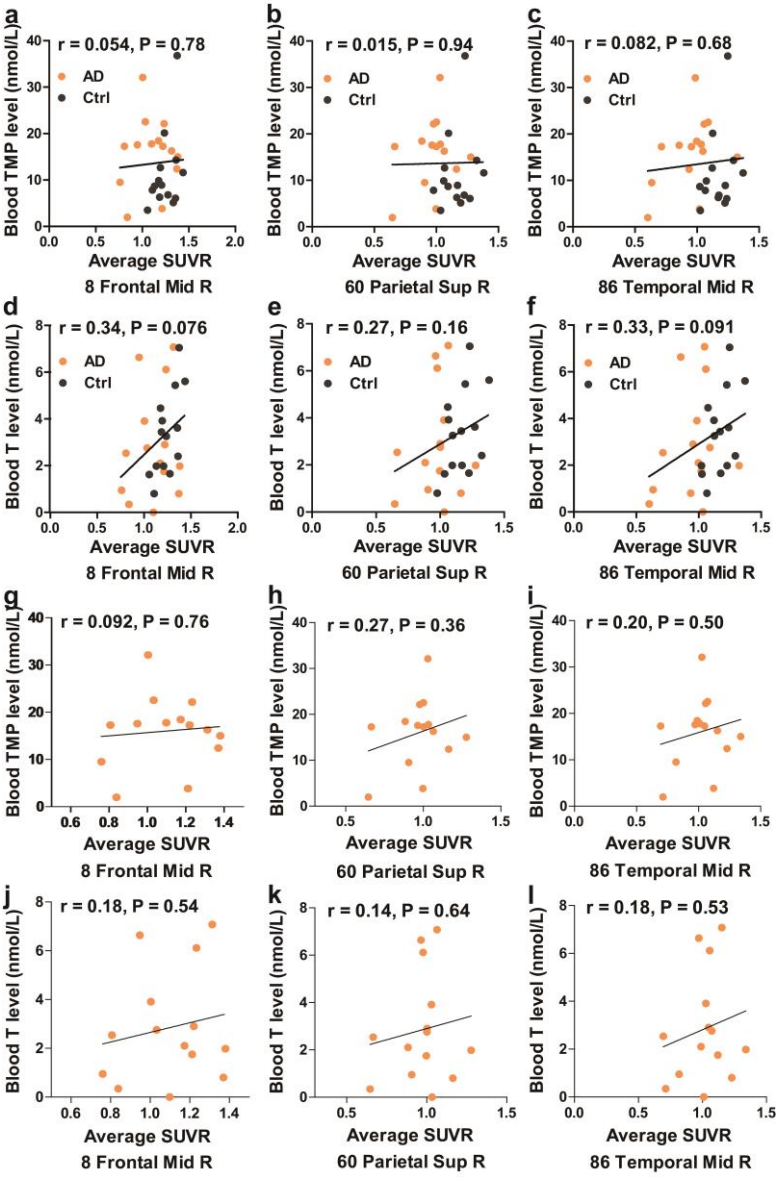

Figure S2. Blood TMP and thiamine levels do not significantly correlate with brain glucose metabolism. a-c. Correlation between SUVRs of representative brain regions and blood TMP levels in all subjects (N = 28). **d-f.** Correlation between SUVRs of representative brain regions and blood thiamine levels in all subjects (N = 28). **g-i.** Correlation between SUVRs of representative brain regions and blood TMP levels in AD patients (N = 14). **j-l.** Correlation between SUVRs of representative brain regions and blood thiamine levels in AD patients (N = 14).

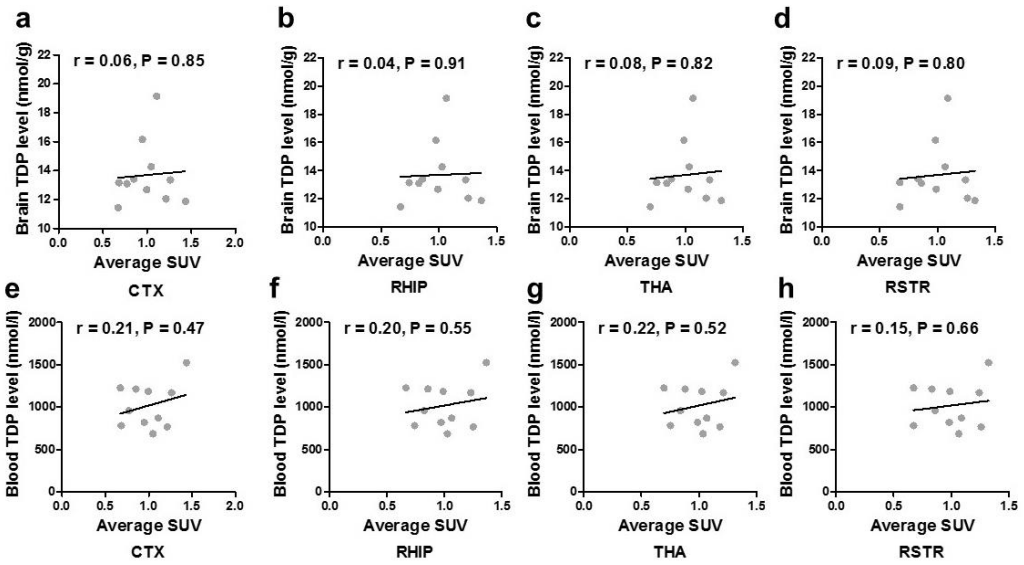

Figure S3. Blood and brain TDP levels do not significantly correlate with brain glucose metabolism in control mice. a-d. Correlations between brain TDP levels and SUVs in representative brain regions of control mice (N = 11). **e-h**. Correlations between blood TDP levels and SUVs in representative brain regions of control mice (N = 11).

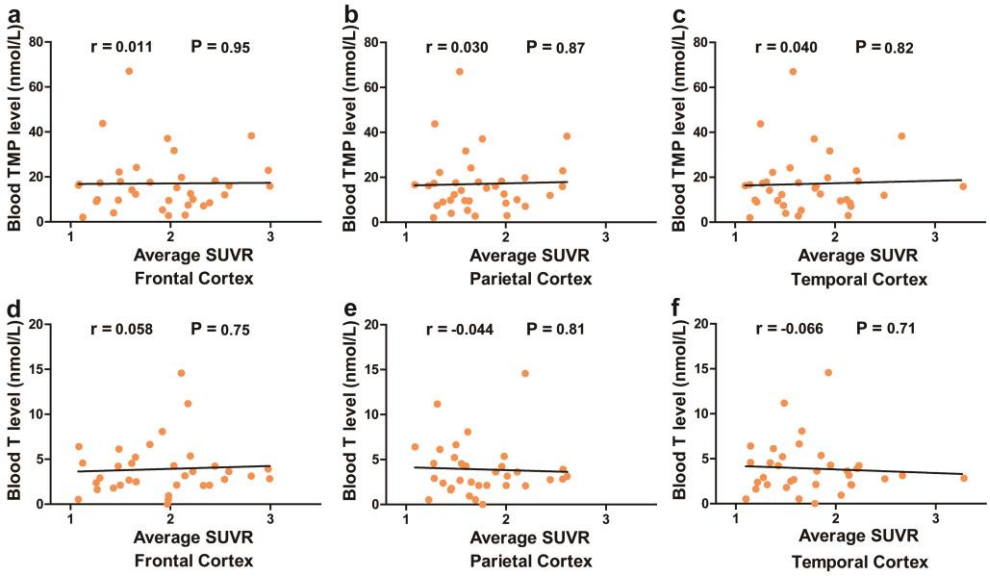

Figure S4. Blood TMP and thiamine levels do not significantly correlate with brain amyloid deposits in AD patients. a-c. Blood TMP levels did not significantly correlate with average SUVRs of representative brain regions in AD patients (N = 35). **d-f**. Blood thiamine levels did not significantly correlate with average SUVRs of representative brain regions in AD patients (N = 35).