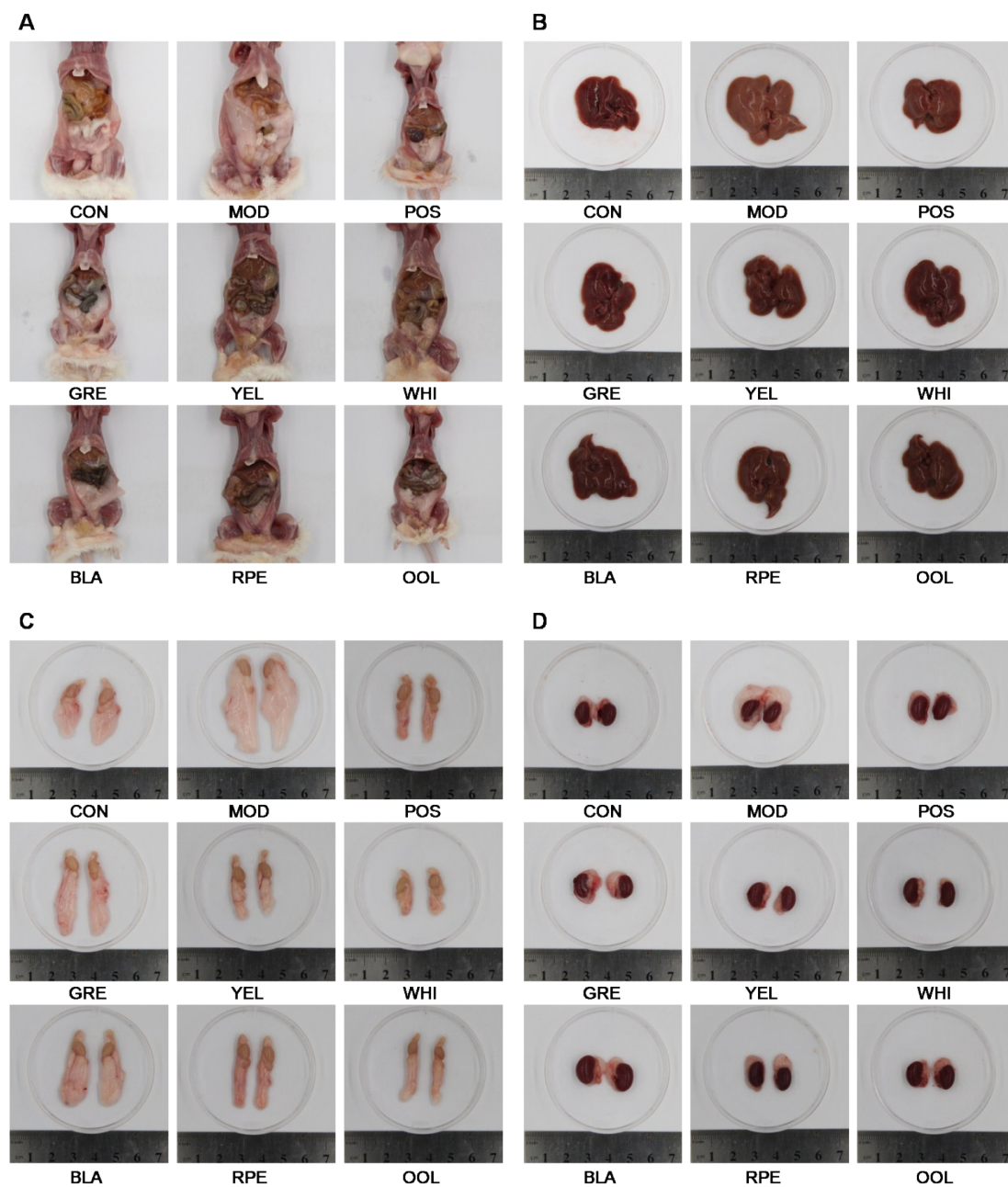


**Supplementary Materials:**

**Figure S1.** WEATs decreased the accumulation of white fat in HFD-fed obese mice. Representative picture of whole body (A), liver (B), epididymal (C) and pararenal (D) fat.

**Figure S1.**



**Table S1.** The correlation coefficient (r) between biological activities and chemical composition of WEATs.

	Free amino acid (%)	Flavonoids (mg/g)	Soluble sugar (%)	Tea polyphenols (%)	Theaflavins (%)	Thearubigins (%)	Theabrownins (%)	Caffeine (%)
Body weight gain (g/mouse)	-0.272	0.179	0.199	0.204	-0.133	0.127	0.006	-0.413
Epididymal fat / Body weight(%)	-0.566	0.404	0.439	-0.432	0.000	0.003	0.484	0.146
Pararenal fat / Body weight (%)	-0.450	0.347	0.221	-0.191	0.022	0.092	0.324	-0.003
Intestinal fat / Body weight (%)	-0.487	0.302	0.196	-0.205	-0.023	0.027	0.308	0.027
Total white fat / Body weight (%)	-0.538	0.381	0.361	-0.352	0.001	0.025	0.430	0.099

**Table S2.** The correlation coefficient (r) between biological activities and caffeine and catechin monomers of WEATs.

	G (%)	GC (%)	EGC (%)	C (%)	EC (%)	EGCG (%)	GCG (%)	ECG (%)	CG (%)
Body weight gain (g/mouse)	0.020	0.215	0.123	0.175	0.351	0.054	0.154	0.116	-0.014
Epididymal fat / Body weight(%)	-0.443	0.058	-0.189	0.003	-0.129	-0.513	-0.472	-0.483	-0.673
Pararenal fat / Body weight (%)	-0.366	0.002	-0.141	-0.064	0.005	-0.281	-0.288	-0.229	-0.485
Intestinal fat / Body weight (%)	-0.427	0.035	-0.128	-0.013	0.011	-0.290	-0.303	-0.239	-0.497
Total white fat / Body weight (%)	-0.431	0.043	-0.173	-0.013	-0.081	-0.437	-0.414	-0.398	-0.615