Supplementary Table 2: Interaction between the *FTO*-GRS and lifestyle factors on vitamin B12, folic acid, homocysteine and obesity traits

	BMI (kg/m^2)	WC (cm)	Vitamin B12(pg/mL)	Homocysteine (μmol/L)	Folic acid (ng/ml)
Interaction between the GRS and carbohydrate energy (%)	-0.08 ± 0.09	0.02 ± 0.11	1.40 ± 3.55	-0.03 ± 0.13	0.01 ± 0.10
P value	†0.387	0.882	0.694	0.83	0.952
Interaction between the GRS and Fat energy (%)	0.23 ± 0.12	0.18 ±0.15	0.98 ± 4.87	-0.07 ± 0.18	0.09 ± 0.14
P value	†0.052	0.225	0.841	0.709	0.539
Interaction between the GRS and Protein energy (%)	0.37 ± 0.50	0.77 ± 0.59	6.10 ± 19.95	0.03 ± 0.75	0.20 ± 0.58
P value	†0.451	0.196	0.76	0.968	0.728
Interaction between the GRS and Fibre (g)	0.08 ± 0.05	0.14 ± 1.49	1.68 ± 1.90	-0.01 ± 0.07	0.04 ± 0.05
P value	†0.081	0.925	0.376	0.898	0.503
Interaction between the GRS and physical activity levels	1.14 ± 1.16	-0.14 ± 1.46	23.02 ± 51.29	0.99 ± 1.93	0.46 ± 1.51
P value	†0.327	0.924	0.654	0.609	0.760

Values are beta coefficients ± standard errors.

P values were obtained by using a general linear model adjusted for age, BMI, Type 2 diabetes status, Type 2 diabetes medication and sex

† P values were obtained by using a general linear model adjusted for age, Type 2 diabetes status, Type 2 diabetes medication and sex

Abbreviations: BMI body mass index; WC waist circumference; WHR waist to hip ratio