

## **Supplementary Material**

Article Title: Increased Dipeptidyl Peptidase-4 Activity Is Associated With High Prevalence of Depression

in Middle-Aged and Older Adults: A Cross-Sectional Study

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	Depression symptoms		
	No	Yes	P Value
n	1187	148	-
Age (years)	58.6±7.6	59.5±8.1	0.155
Percent women (%)	67.0	78.4	0.005
BMI ( $kg/m^2$ )	23.2±3.7	24.3±4.1	0.001
WHR	$0.87 \pm 0.08$	$0.90\pm0.09$	< 0.001
Current smoking (%)	18.2	26.4	0.017
Alcohol consumption (%)	18.4	23.6	0.129
Leisure-time physical activity (%)	62.3	50.7	0.006
Marital status			0.147
Married (%)	91.7	87.2	
Single (%)	1.3	1.4	
Widowed (%)	7.0	11.5	
Education level			0.331
≦Primary school	44.1	42.6	
Middle school	45.2	42.6	
≥High school	10.8	14.9	
Annual income, RMB			0.003
≦5000	4.5	9.5	
5000-30000	45.9	52.7	
>30000	49.6	37.8	
IL-6(pg/ml)	1.31±0.31	1.66±0.78	< 0.001
hs-CRP(mg/L)	1.18±0.23	1.40±0.45	< 0.001
NPY(ng/ml)	$0.149\pm0.045$	0.154±0.052	0.260
DPP4 activity(nmol/min/ml)	15.85±6.71	20.16±7.51	< 0.001

Supplementary eTable2. Trend associations between DPP4 quartiles and IL-6, hs-CRP, NPY and categorically defined depression.

	DPP4 quartiles			$\chi^2$	P	
	Q1	Q2	Q3	Q4	χ	r
IL-6 (pg/ml) <sup>a</sup>	1.25±0.27	1.31±0.30	1.33±0.31	1.50±0.60	31.76	<0.001
hs-CRP (mg/L) <sup>a</sup>	1.14±0.24	1.16±0.22	1.22±0.21	1.31±0.36	59.24	< 0.001
NPY (ng/ml) <sup>a</sup>	0.150±0.045	0.145±0.040	0.154±0.051	0.151±0.044	3.49	0.323
PHQ-9 score <sup>a</sup>	2.33±3.20	2.46±3.38	3.83±4.44	5.60±5.28	145.70	< 0.001
Depression (%) <sup>b</sup>	6.9	5.7	12.2	19.5	34.91	< 0.001

<sup>&</sup>lt;sup>a</sup> Kruskal-Wallis test

<sup>&</sup>lt;sup>b</sup> Cochran Armitage test

## Supplementary eFigure1: Trial profile

