

**Supplementary Table 6.** Odds ratios (95% confidence intervals) of type 2 diabetes mellitus associated with quartile levels of the continuous biomarker score<sup>a</sup>

Variable	Biomarker score				P trend <sup>b</sup>
	Q1	Q2	Q3	Q4	Purend
Total dataset					
Median (range)	-0.12 (-2.1 to 0.6)	1.3 (0.7 to 1.8)	2.4 (1.9 to 2.9)	3.7 (2.9 to 8.2)	
No. of cases/controls	24/122	65/121	129/121	267/121	
Model 1 <sup>c</sup>	1.00	3.09 (1.57 to 6.08)	7.57 (3.85 to 14.9)	14.1 (7.05 to 28.3)	< 0.001
Model 2 <sup>d</sup>	1.00	3.15 (1.42 to 6.96)	6.33 (2.82 to 14.2)	14.2 (6.03 to 33.3)	< 0.001
Limited to cases with baseline HbA1c <6.5% and matched controls					
Median (range)	-0.13 (-1.9 to 0.6)	1.3 (0.7 to 1.8)	2.3 (1.9 to 2.9)	3.7 (2.9 to 6.9)	
No. of cases/controls	20/62	37/65	65/66	124/53	
Model 1 <sup>c</sup>	1.00	2.50 (1.08 to 5.75)	3.82 (1.70 to 8.60)	10.7 (4.32 to 26.3)	< 0.001
Model 2 <sup>d</sup>	1.00	2.79 (1.10 to 7.08)	3.41 (1.33 to 8.70)	10.9 (3.81 to 31.0)	< 0.001
Limited to cases with baseline HbA1c $<$ 6.0 % and matched controls					
Median (range)	-0.12 (-1.9 to 0.6)	1.3 (0.7 to 1.8)	2.4 (1.9 to 2.9)	3.8 (2.9 to 6.0)	
No. of cases/controls	13/31	25/30	34/38	57/30	
Model 1 <sup>c</sup>	1.00	3.20 (1.12 to 9.18)	3.12 (1.09 to 8.99)	9.50 (2.81 to 32.1)	< 0.001
Model 2 <sup>d</sup>	1.00	3.89 (1.20 to 12.6)	3.34 (0.92 to 12.1)	11.8 (2.68 to 51.6)	< 0.001

HbA1c, glycosylated hemoglobin.

a The biomarker score was constructed using each biomarker (the ratio of triglycerides to high density lipoprotein cholesterol, alanine aminotransferase, ferritin, and adiponectin) as log-transformed continuous variable, b Linear trend was tested by using the median level of each quartile of the biomarker score, Model 1 was calculated using conditional logistic regression models after adjusting for age at blood taken (continuous), smoking (never, former, and current smoker), alcohol intake (never, weekly or daily), weekly activity (<0.5, 0.5 to 3.9, and ≥4.0 hr/wk), education level (primary school and below, secondary or above), history of hypertension (yes, no), body mass index (continuous), and fasting status (yes, no), dModel 2: Model 1 plus random glucose and random insulin levels (both in quartiles).