SUPPLEMENTARY DATA

Supplementary Table 1. Stratified analysis on associations between total dairy intake and risk of diabetes*.

	Dairy product consumption (serving/day)				*P* for trend	*P* for interaction
	None	<0.5	0.5-1	>1		
Age						0.80
<59 years	1	0.98(0.76,1.28)	0.81(0.59,1.11)	0.73(0.50,1.06)	0.06	
≥59 years	1	0.96(0.73,1.27)	0.63(0.45,0.87)	0.63(0.44,0.90)	0.002	
Sex						0.06
Men	1	1.18(0.89,1.56)	0.85(0.59,1.24)	0.90(0.60,1.36)	0.44	
Women	1	0.78(0.60,1.02)	0.66(0.48,0.86)	0.56(0.40,0.79)	<0.001	
BMI						0.31
< 25 kg/m^2	1	1.07(0.79,1.45)	0.75(0.52,1.09)	0.69(0.44,1.07)	0.06	
≥ 25 kg/m^2	1	0.85(0.67,1.09)	0.67(0.51,0.90)	0.63(0.46,0.87)	0.001	
HOMA-IR						0.13
≤ 3.23	1	0.91(0.66,1.25)	0.88(0.61,1.27)	0.74(0.58,1.15)	0.19	
> 3.23	1	0.98(0.78,1.24)	0.62(0.46,0.83)	0.60(0.44,0.83)	<0.001	

Abbreviations: HOMA-IR, homeostasis model assessment for insulin resistance.
* Relative risk (95% confidential intervals) and P values were estimated in log-Poisson model after adjustment of all covariates in model 3 of table 2, where appropriate.

Supplementary Table 2. Spearman correlation coefficients of *trans* fatty acids with dairy products *.

	Trans-18:1 isomers	18:2n6 9c12t	18:2n6 9t12c
Erythrocyte 18:2n6 9c12t	0.38		
Erythrocyte 18:2n6 9t12c	0.33	0.83	
Total dairy product †	0.37	0.21	0.23
Milk	0.35	0.19	0.18
Dairy product except milk	0.23	0.13	0.16

* Spearman correlations were calculated after adjustment of age, sex and total energy intake, all *P* values<0.001.
† Total dairy product included milk, milk powder, yogurt, ice cream, milk flake, cheese, cream, and cream cake.

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Supplementary Table 3. Relative risks of diabetes according to dairy consumption groups, by including HbA1c ≥6.5% as a further criterion to define diabetes*.

	Dairy product consumption (serving/day)				*P*
Total dairy products	None	≤0.5	0.5-1.0	>1	
Case/Participants	386/857	199/445	159/381	135/320	
Model 1†	1	0.93(0.82,1.06)	0.86(0.74,1.00)	0.85(0.72,1.01)	0.026
Model 2	1	0.93(0.82,1.06)	0.85(0.73,0.98)	0.83(0.70,0.98)	0.012
Model 3	1	0.91(0.80,1.03)	0.87(0.75,1.00)	0.86(0.73,1.00)	0.027
Model 4	1	0.91(0.81,1.03)	0.89(0.78,1.02)	0.93(0.80,1.09)	0.19
Milk	None	≤0.5	>0.5		
Case/Participants	506/1132	140/317	233/554		
Model 1	1	0.91(0.79,1.05)	0.86(0.76,0.98)		0.02
Model 2	1	0.91(0.79,1.04)	0.86(0.75,0.97)		0.013
Model 3	1	0.90(0.78,1.03)	0.89(0.79,1.00)		0.045
Model 4	1	0.92(0.81,1.04)	0.96(0.85,1.08)		0.40
Total dairy products except milk	None	≤0.5	>0.5		
Case/Participants	556/1265	244/552	79/186		
Model 1	1	1.01(0.90,1.14)	0.95(0.79,1.15)		0.79
Model 2	1	1.01(0.90,1.13)	0.93(0.77,1.12)		0.62
Model 3	1	0.98(0.88,1.09)	0.90(0.75,1.09)		0.31
Model 4	1	0.97(0.87,1.07)	0.94(0.79,1.13)		0.43

* Relative risks (95% confidential intervals) and P for trend of diabetes were calculated using log-Poisson model;
† Covariates included: model 1, age, sex, region, and residence; Model 2, further adjusted for smoking (current, past, never), family history of diabetes, BMI, dietary fiber intakes based on model 1; Model 3, further adjusted for changes in BMI and waistline based on model 2 (n=1825); Model 4, further adjusted for changes in glucose based on model 3 (n=1816).

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Supplementary Table 4. Relative risks of diabetes according to erythrocyte *trans*-18:1 isomers quartiles, by including HbA1c ≥6.5% as a further criterion to define diabetes*.

	Quartile 1(	Quartile 2	Quartile 3	Quartile 4	*P*
Trans-18:1 isomers, %	0.13±0.02	0.17±0.01	0.21±0.01	0.28±0.05	
Case	221/495	232/495	219/495	200/494	
Model 1†	1	1.00(0.87,1.15)	0.94(0.82,1.08)	0.86(0.74,0.99)	0.03
Model 2	1	0.99(0.87,1.14)	0.96(0.84,1.11)	0.90(0.77,1.05)	0.16
Model 3	1	1.00(0.87,1.14)	0.97(0.84,1.12)	0.92(0.79,1.08)	0.30

* Relative risks (95% confidential intervals) and P for trend of diabetes were calculated using log-Poisson model;

† Covariates included: model 1, age, sex, region, and residence; model 2, further adjusted by smoking, family history of diabetes, BMI, dietary fiber intakes, and erythrocyte trans 18:2n-6 9c12t and trans 18:2n-6 9t12c based on model 1; model 3, further adjusted by total dairy product consumption based on model 2.