

Table S4. Individual and joint effect of trehalose and glutamate on the odds of diabetic retinopathy after taking health controls as reference.

Metabolites > median	Model 1 ^a		Model 2 ^b		Model 3 ^c	
	OR (95%CI)	P	OR (95%CI)	P	OR (95%CI)	P
Trehalose						
Per IQR	0.61(0.43,0.88)	0.009	0.60(0.40,0.90)	0.013	0.42(0.16,1.11)	0.079
Quartiles						
Q ₁	1.00(1.00,1.00)	Ref.	1.00(1.00,1.00)	Ref.	1.00(1.00,1.00)	Ref.
Q ₂	0.21(0.07,0.58)	0.003	0.12(0.04,0.41)	0.001	0.05(0.00,1.48)	0.082
Q ₃	0.29(0.10,0.82)	0.019	0.27(0.08,0.90)	0.032	0.08(0.00,3.62)	0.191
Q ₄	0.17(0.06,0.48)	0.001	0.13(0.04,0.44)	0.001	0.07(0.00,1.56)	0.093
P for trend		0.003		0.006		0.139
Glutamate						
Per IQR	3.52(1.98,6.26)	<0.001	5.70(2.74,11.85)	<0.001	13.02(0.86,196.95)	0.064
Quartiles						
Q ₁	1.00(1.00,1.00)	Ref.	1.00(1.00,1.00)	Ref.	1.00(1.00,1.00)	Ref.
Q ₂	1.10(0.39,3.07)	0.856	1.33(0.43,4.09)	0.623	1.80(0.05,60.86)	0.743
Q ₃	3.20(1.18,8.67)	0.022	4.83(1.52,15.32)	0.008	15.82(0.42,602.63)	0.137
Q ₄	11.20(3.55,35.36)	<0.001	25.55(6.24,104.59)	<0.001	47.83(1.01,2263.78)	0.049
P for trend		<0.001		<0.001		0.035
Trehalose Glutamate						
Yes No	1.00(1.00,1.00)	Ref.	1.00(1.00,1.00)	Ref.	1.00(1.00,1.00)	Ref.
No No	1.03(0.36,2.95)	0.963	0.87(0.28,2.70)	0.808	1.33(0.05,34.38)	0.862
Yes Yes	3.69(1.33,10.28)	0.012	6.84(2.01,23.24)	0.002	9.05(0.15,552.85)	0.294
No Yes	6.71(2.61,17.27)	<0.001	9.12(3.03,27.40)	<0.001	30.15(0.97,934.31)	0.052
Interaction (Trehalose*Glutamate)						
RERI (95% CI)	3.00(-2.67,8.66)		2.41(-7.51,12.32)		20.76(-64.75,106.28)	

Abbreviation: IQR, interquartile range; Q₁, the first quartile; Q₂, the second quartile; Q₃, the third quartile; Q₄, the fourth quartile; RERI, relative excess risk of interaction; OR, odds ratio.

^a Model 1 was unadjusted.

^b Model 2 was adjusted for SBP, TC and TG.

^c Model 3 was adjusted for SBP, TC, TG and HbA_{1c}.