

Table S2. Individual and joint effect of trehalose and glutamate on the odds of diabetic retinopathy after adjusting the effects of dietary favor.

| Metabolites > median | Model 2 ^a | | Model 3 ^b | | |
|-----------------------------------|----------------------|--------------------|----------------------|----------------------|--------|
| | OR (95%CI) | P | OR (95%CI) | P | |
| Trehalose | | | | | |
| Per IQR | 0.39(0.23,0.66) | <0.001 | 0.13(0.05,0.33) | <0.001 | |
| Quartiles | | | | | |
| Q ₁ | 1.00(1.00,1.00) | Ref. | 1.00(1.00,1.00) | Ref. | |
| Q ₂ | 0.44(0.15,1.32) | 0.142 | 0.17(0.04,0.77) | 0.021 | |
| Q ₃ | 0.62(0.20,1.87) | 0.394 | 0.12(0.02,0.60) | 0.010 | |
| Q ₄ | 0.08(0.02,0.30) | <0.001 | 0.01(0.00,0.05) | <0.001 | |
| P for trend | | 0.001 | | <0.001 | |
| Glutamate | | | | | |
| Per IQR | 1.90(1.26,2.87) | 0.002 | 2.40(1.43,4.04) | 0.001 | |
| Quartiles | | | | | |
| Q ₁ | 1.00(1.00,1.00) | Ref. | 1.00(1.00,1.00) | Ref. | |
| Q ₂ | 0.98(0.30,3.14) | 0.966 | 0.74(0.19,2.97) | 0.675 | |
| Q ₃ | 3.21(1.07,9.61) | 0.037 | 2.98(0.71,12.48) | 0.135 | |
| Q ₄ | 4.85(1.49,15.73) | 0.009 | 8.49(1.99,36.32) | 0.004 | |
| P for trend | | 0.002 | | 0.001 | |
| Trehalose | Glutamate | | | | |
| Yes | No | 1.00(1.00,1.00) | Ref. | 1.00(1.00,1.00) | Ref. |
| No | No | 0.58(0.17,1.98) | 0.384 | 1.06(0.22,5.11) | 0.939 |
| Yes | Yes | 0.98(0.31,3.08) | 0.966 | 1.06(0.26,4.24) | 0.937 |
| No | Yes | 13.94(3.44,56.46) | <0.001 | 46.24(7.78,274.77) | <0.001 |
| Interaction (Trehalose*Glutamate) | | 24.69(3.95,154.38) | 0.001 | 41.11(4.12,410.72) | 0.002 |
| RERI (95% CI) | | 10.90(-3.66,25.45) | | 45.11(-36.11,126.35) | |

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 2 was adjusted for SBP, duration of diabetes, and dietary favor variables (prefer high salt diet or not, prefer high oil diet or not, and prefer pickled food or not).

^b Model 3 was adjusted for the confounders chosen by LASSO regression plus dietary favor variables.