

On-line Supplementary Material

“Impact of Regular Consumption of Grapes on Macular Pigment Accumulation in Singapore Older Adults: A Randomized Controlled Trial” by Weili Hu *et al.*

Supplementary Table 1. Nutritional Composition of FDGP/Control per packet

Nutrient	Amount/packet (46g)
Energy (kcal)	170.66
Total Carbohydrate (g)	40.76
Protein (g)	1.65
Fat (g)	0.138
Vitamin A from carotene (IU) ¹	97.52
Vitamin C (mg) ¹	2.7
Carotenoids¹	
Lutein (μg)	322.3
α-carotene (μg)	103.7
β-carotene (μg)	235.5
Phenolic Compounds¹	
Catechin (μg)	1304.6
Kaempferol (μg)	47.4
Isorhamnetin (μg)	48.7
Quercetin (μg)	664.2
Taxifolin (μg)	86.0
Resveratrol (μg)	39.1
Anthocyanins (mg)	13.6

¹Compounds only present in the FDGP

Supplementary Table 2. Macro/Micronutrients in habitual diet across 16-week study

		Placebo	Intervention	<i>P</i>	
				Time	Group x Time
Energy (kcal/day)	Week 0	1674.5±115.4	1480.2±95.0	0.579	0.721
	Week 4	1638.8±152.3	1565.9±89.8		
	Week 8	1630.4±146.3	1560.2±88.0		
	Week 12	1662.3±130.7	1627.6±112.7		
	Week 16	1543.3±125.2	1526.1±111.6		
Total Carbohydrate (g/day)	Week 0	65.1±8.0	52.2±7.3	0.139	0.978
	Week 4	60.3±10.1	49.3±6.2		
	Week 8	61.8±9.7	51.6±5.6		
	Week 12	58.3±9.4	51.5±6.5		
	Week 16	54.1±5.8	40.3±5.3		
Protein (g/day)	Week 0	76.1±7.7	65.1±4.4	0.909	0.358
	Week 4	70.1±7.1	67.5±5.3		
	Week 8	71.1±7.1	73.9±6.4		
	Week 12	70.0±6.0	73.3±5.7		
	Week 16	71.9±6.3	69.0±5.7		
Fat (g/day)	Week 0	62.4±5.0	56.7±4.2	0.328	0.797
	Week 4	63.0±7.1	63.6±5.3		
	Week 8	59.7±7.7	59.0±4.8		
	Week 12	69.1±6.2	63.1±6.2		
	Week 16	59.5±6.1	60.2±6.2		
α-carotene (μg/d)	Week 0	608.5±153.2	541.8±202.4	0.396	0.357

	Week 4	817.0±180.2	222.1±93.1		
	Week 8	920.5±410.0	354.0±108.5		
	Week 12	473.6±191.3	272.9±111.4		
	Week 16	373.4±149.0	307.8±102.8		
	Week 0	3067.7±729.6	2443.7±543.9		
	Week 4	3824.2±676.0	3100.9±704.9		
<i>β</i>-carotene (μg/d)	Week 8	3538.5±852.0	2831.3±522.3	0.487	0.694
	Week 12	4600.4±1808.7	2581.5±453.1		
	Week 16	3389.9±927.4	2310.0±486.7		
	Week 0	2355.1±828.8	2298.9±594.1		
	Week 4	2658.1±922.15	2336.1±478.1		
Lutein (μg/d)	Week 8	2495.3±735.2	2301.6±912.6	0.783	0.863
	Week 12	3679.6±2136.3	2287.9±565.4		
	Week 16	2599.5±786.5	1386.01±334.5		
	Week 0	549.1±94.2	581.4±126.0		
	Week 4	576.8±89.4	603.2±103.8		
Vitamin A (μg/d)	Week 8	559.4±104.9	468.4±53.1	0.907	0.572
	Week 12	645.0±167.6	496.0±69.6		
	Week 16	631.1±138.5	453.7±78.6		

Data were reported as mean ± SEM.

Supplementary Table 3. Change in MPOD across 16-week study

		Placebo	Intervention	<i>P</i>	
				Time	Group x Time
	Week 0	0.51±0.04	0.56±0.04		
	Week 4	0.54±0.05	0.58±0.04		
MPOD (D.U.)	Week 8	0.53±0.04	0.59±0.04	0.007	0.810
	Week 12	0.53±0.04	0.58±0.04		
	Week 16	0.54±0.04	0.61±0.04**		

Data were reported as mean ± SEM. *Denotes for significant difference within group compared to baseline visit using one-way repeated measure ANOVA: Tukey's multiple comparisons test. *P < 0.05, **P < 0.01.

Supplementary Table 4. Change in plasma total antioxidant capacity and phenolic content cross 16-week study

		Placebo	Intervention	<i>P</i>	
				Time	Group x Time
Total Antioxidant Capacity (TEAC mM)	Week 0	0.23±0.10	0.26±0.13		
	Week 8	0.26±0.11	0.29±0.11	0.057	0.132
	Week 16	0.25±0.14	0.36±0.20**		
Total Phenolic Content (GAE mg/L)	Week 0	10.62±0.60	10.50±0.44		
	Week 8	10.45±0.76	11.21±0.46	0.112	0.003
	Week 16	10.09±0.49	12.58±0.55***		

Data were reported as mean ± SEM. *Denotes for significant difference within group compared to baseline visit using one-way repeated measure ANOVA: Tukey's multiple comparisons test. *P < 0.05, **P < 0.01, ***P < 0.001.

Supplementary Table 5. Change in skin AGEs level cross 16-week study

		Placebo	Intervention	<i>P</i>	
				Time	Group x Time
	Week 0	2.47±0.24	2.38±0.15		
	Week 4	2.79±0.13	2.38±0.15		
Skin AGEs	Week 8	2.77±0.12	2.77±0.12	0.045	0.095
	Week 12	2.67±0.11	2.39±0.12		
	Week 16	2.99±0.12*	2.42±0.11		

Data were reported as mean ± SEM. *Denotes for significant difference within group compared to baseline visit using one-way repeated measure ANOVA: Tukey's multiple comparisons test. *P < 0.05.