Supplementary Materials: Mediterranean diet adherence and genetic background roles within a web-based nutritional intervention: the Food4Me study

Rodrigo San-Cristobal, Santiago Navas-Carretero, Katherine M Livingstone, Carlos Celis-Morales, Anna L Macready, Rosalind Fallaize, Clare B O'Donovan, Christina P. Lambrinou, George Moschonis, Cyril F.M. Marsaux, Yannis Manios, Miroslaw Jarosz, Hannelore Daniel, Eileen R Gibney, Lorraine Brennan, Christian A Drevon, Thomas E Gundersen, Mike Gibney, Wim HM Saris, Julie A Lovegrove, Keith Grimaldi, Laurence D. Parnell, Jildau Bouwman, Ben van Ommen, John C Mathers, J. Alfredo Martinez, on behalf of the Food4Me Study.

2. Materials and Methods

Table S1. SNP distribution and Hardy-Weinberg test

Gene	Polymorphism	Common alelle / Risk alelle	Heterozygous (%)	Homozygous for risk allele (%)	X^2 †	p †	Exact significance
ADRB2	rs1042713	G / A	49.33	15.6	0.818	0.3659	0.3807
ADRB2	rs1042714	C / G	49.05	13.95	1.642	0.2001	0.2121
AGT	rs5051	C / T	48.18	21	0.924	0.3365	0.3343
AGT	rs699	T / C	47.57	21.16	1.884	0.1699	0.1716
APOA1	rs5069	C / T	6.74	0.08	0.178	0.6727	1
APOA2	rs5082	T / C	44.17	15.62	4.502	**0.0339**	**0.0358**
APOA5	rs662799	A / G	13.88	0.79	0.944	0.3313	0.3214
APOE	rs429358	T / C	24.54	2.06	0	0.9889	1
APOE	rs7412	T / C	11.91	87.85	0.79	0.3742	0.6233
BCMO1	rs6564851	G / T	49.64	28.55	0.009	0.9263	0.9549
CETP	rs3764261	G / T	44.15	9.79	0.358	0.5496	0.6032
CETP	rs708272	C / T	45.99	21.6	6.057	**0.0138**	**0.0142**
COMT	rs4680	G / A	49.8	24.82	0.02	0.8887	0.9102
FADS1	rs174546	C / T	46.43	10.54	1.848	0.174	0.1864
FTO	rs9939609	T / A	50.04	18.05	0.525	0.4689	0.4913
FTO	rs1121980	C / T	49.68	21.16	0	0.9981	1
GC	rs2282679	A / C	38.44	7.58	0.512	0.4742	0.472
GC	rs4588	C / A	40.86	7.92	0.042	0.838	0.8898
GC	rs7041	G / T	48.81	18.94	0.048	0.8268	0.8189
GPX1	rs1050450	C / T	42.71	10.36	0.243	0.6221	0.6482
GSTP1	rs1695	G / A	43.93	43.3	1.212	0.2709	0.2643
IRS1	rs1801278	G / A	13.4	0.56	0.023	0.88	0.8337
LIPC	rs10468017	C / T	40.33	7.45	0.099	0.7526	0.7786
MAOA	rs6323	T / G	25.54	18.4	206.679	**<0.001**	**<0.001**
MTHFR	rs1801133	C / T	44.42	10.93	0.007	0.932	0.9495
SLC6A4	rs16965628	G / C	13.73	0.48	0.107	0.7433	1

Table S1. *Cont.*

SOD2	rs4880	T / C	50.75	25.34	0.295	0.5872	0.612
TCF7L2	rs7903146	C / T	42.11	7.22	1.847	0.1741	0.1874
TPH2	rs4570625	G /T	34.31	4.21	0.563	0.4529	0.5023
VDR	rs1544410	G / A	48.33	16.67	0	0.9919	1
VDR	rs2228570	C / T	47.27	14.89	0.005	0.9429	0.9526

† X^2 and p-value for Hardy-Weinberg equilibrium test

Table S2. QTL association analysis with multiple traits at baseline

	Additive effect		**Dominant effect**		**Both†**	
	F	p	F	p	F	p
BMI (kg/m²)						
rs9939609	5.85	**0.016**	0	0.961	3.02	**0.049**
rs1801133	0.24	0.622	6.11	**0.014**	3.31	**0.037**
rs4570625	4.76	**0.029**	2.53	0.112	2.38	0.093
rs6564851	5.01	**0.025**	0.03	0.873	2.51	0.082
Waist circumference (m)						
rs9939609	5.3	**0.021**	0.98	0.323	2.79	0.062
rs1801133	0.72	0.397	7.47	**0.006**	3.83	**0.022**
rs4570625	6.78	**0.009**	2.31	0.129	3.51	**0.03**
Glucose (mmol/L)						
rs1042714	10.51	**0.001**	2.7	0.101	5.44	**0.004**
rs16965628	4.15	**0.042**	3.99	**0.046**	2.12	0.121
rs2282679	0.81	0.368	4.18	**0.041**	2.15	0.117
rs4680	5.55	**0.019**	1.85	0.175	3.73	**0.024**
Total cholesterol (mmol/L)						
rs7903146	6.11	**0.014**	0.59	0.444	3.41	**0.033**
rs7412	5.18	**0.023**	10.22	**0.001**	8.73	**<0.001**
rs1050450	6.05	**0.014**	7.26	**0.007**	4.53	**0.011**
Total carotenoids (μmol/L)						
rs7412	1.18	0.278	0.05	0.823	4.3	**0.014**
rs662799	4.95	**0.026**	2.03	0.154	3.22	**0.04**
Omega3 index (AU)						
rs2228570	5.86	**0.016**	0.01	0.928	3.17	**0.042**
rs4880	0.68	0.411	5.52	**0.019**	3.17	**0.042**

† Analysis assuming that both effects are equal to zero, which is equivalent to comparing means across the three possible genotypes and phenotypes. AU: Arbitrary units. QTL: Quantitative Trait Locus.