

**Supplementary Table 9. Comparison of genotype frequencies with normal TG level between the longevity and the control group.**

SNP	Genetic model		Longevity	Control	P	OR	95% CI
			TG≤1.7	TG≤1.7			
rs8176719	Dominant Model	N(--)	317	366	ref		
		N(CC+-C)	566	810	0.023	0.807	0.671-0.971
rs687621	Recessive Model	N(AA+AG)	767	1142	ref		
		N(GG)	37	34	0.044	1.620	1.008-2.604
rs643434	Dominant Model	N(GG)	278	541	ref		
		N(AA+GA)	526	635	3.977*10 <sup>-7</sup>	1.612	1.340-1.940
rs505922	Dominant Model	N(TT)	278	541	ref		
		N(CC+TC)	526	635	3.977*10 <sup>-7</sup>	1.612	1.340-1.940

N, number.

**Supplementary Table 10. Analysis of plasma lipid levels and healthy-associated haplotypes.**

HDL	Longevity					Nonagenarians					Centenarians				
	Case	Control	P	OR	95%CI	Case	Control	P	OR	95%CI	Case	Control	P	OR	95%CI
-AGT	280	797	-	-	-	147	322	-	-	-	133	475	-	-	-
CAGT	31	92	0.849	0.959	0.624-1.473	18	39	0.971	1.011	0.560-1.827	13	53	0.683	0.876	0.464-1.655
CGAC	142	464	0.244	0.871	0.691-1.099	70	172	0.507	0.891	0.635-1.252	72	292	0.438	0.881	0.638-1.215
LDL															
-AGT	120	957	-	-	-	39	430	-	-	-	81	527	-	-	-
CAGT	23	100	0.014	1.834	1.122-2.998	10	47	0.024	2.346	1.100-5.002	13	53	0.156	1.596	0.833-3.057
CGAC	86	520	0.067	1.319	0.980-1.775	27	215	0.216	1.385	0.825-2.323	59	305	0.215	1.259	0.875-1.811
TG															
-AGT	132	943	-	-	-	67	402	-	-	-	65	541	-	-	-
CAGT	22	101	0.078	1.556	0.948-2.555	15	42	0.018	2.143	1.126-4.079	7	59	0.976	0.987	0.433-2.253
CGAC	59	547	0.115	0.771	0.557-1.066	23	219	0.069	0.630	0.382-1.040	35	328	0.591	0.888	0.576-1.370
TC															
-AGT	157	918	-	-	-	60	409	-	-	-	97	509	-	-	-
CAGT	23	100	0.229	1.345	0.829-2.182	9	48	0.527	1.278	0.597-2.738	14	52	0.279	1.413	0.753-2.649
CGAC	103	503	0.193	1.197	0.913-1.570	37	205	0.358	1.230	0.790-1.915	66	298	0.391	1.162	0.824-1.639
HDL															
CAGT	31	92	-	-	-	18	39	-	-	-	13	53	-	-	-
CGAC	142	464	0.674	0.908	0.580-1.422	70	172	0.693	0.882	0.473-1.645	72	292	0.988	1.005	0.520-1.943
LDL															
CAGT	23	100	-	-	-	10	47	-	-	-	13	53	-	-	-
CGAC	86	520	0.201	0.719	0.433-1.194	27	215	0.188	0.590	0.268-1.302	59	305	0.485	0.789	0.405-1.538
TG															
CAGT	22	101	-	-	-	15	42	-	-	-	7	59	-	-	-
CGAC	59	547	0.009	0.495	0.290-0.844	23	219	6.000*10 <sup>-4</sup>	0.294	0.142-0.610	35	328	0.808	0.899	0.382-2.120
TC															
CAGT	23	100	-	-	-	9	48	-	-	-	14	52	-	-	-
CGAC	103	503	0.649	0.890	0.540-1.468	37	205	0.925	0.963	0.435-2.128	66	298	0.554	0.823	0.430-1.572

**Supplementary Table 11. Primers of sequencing genotyping.**

<b>Variants</b>	<b>Forward primer</b>	<b>Reverse primer</b>	<b>Product length</b>
rs8176719	TGAACTGCTCGTTGAGGATG	GTGGTCAGAGGAGGCAGAAG	185bp
rs687621	GCCACGCACTTCGACCTAT	GGGCTTAGGACCCCGTAAC	782bp
rs643434	CACATTACCTTAGCACCCCTT	CTGAGGTGAGAGGATGACTT	432bp
rs505922	AACTGTGTTTGCCATCAAGAAAT	CCCACCATGAAGTGCTTCTC	456bp