

Table 8S. Comparison between the SNPs described in Giuliani et al 2018 to the present study. The table reported 6 columns with the description of the SNP, chromosome, position in hg19, minor allele, gene name and the trend of allele frequency in different age groups as described in Giuliani et al 2018 (Class A, B, E and F, see legend). From column 7 to 10 allele frequencies in Cohort 2 is reported as published in Giuliani et al 2018. The p-value of the association test performed between 105+/110+ and CTR (Cohort 1) is reported in the last column.

SNP description						Cohort 2 (data from Giuliani et al 2018)				Cohort 1
CHR	Position (hg19)	SNP	A1	GENE_NAME	Class paper Giuliani et al 2018 (#)	MAF_AGE_MIN50	MAF_AGE_MAG50	MAF_CENT	Fisher_combined_Pval	P-value 105+/110+ vs CTR (Garagnani 2020)
1	217005202	rs1436897	G	ESRRG	ClassA_Giuliani2018	0.3559	0.3942	0.3288	2.02E-05	0.02594
2	47740566	rs876937	G		ClassB_Giuliani2018	0.3913	0.3287	0.3694	2.45E-05	0.04623
7	43864699	rs623108	A		ClassB_Giuliani2018	0.3941	0.3398	0.3979	2.96E-04	0.0005474
11	76415209	rs10899257	A	GUCY2EP	ClassB_Giuliani2018	0.1569	0.1351	0.1547	1.70E-04	0.03773
12	127917085	rs10444466	A		ClassB_Giuliani2018	0.2092	0.1643	0.2312	6.79E-06	0.006454
17	54157181	rs11650687	C		ClassB_Giuliani2018	0.3133	0.2682	0.3063	6.25E-04	0.0287
17	54164935	rs9901788	G		ClassB_Giuliani2018	0.3026	0.2612	0.3106	2.15E-04	0.02037
3	60056853	rs2630196	G	FHIT	ClassE_Giuliani2018	0.2704	0.2869	0.2417	4.09E-05	0.01726
3	60053331	rs2630173	A	FHIT	ClassE_Giuliani2018	0.2685	0.2869	0.2417	6.65E-05	0.01726
20	8144719	rs10485720	G	PLCB1	ClassE_Giuliani2018	0.25	0.2521	0.1997	1.79E-04	0.02917
6	85417046	rs13215600	A		ClassF_Giuliani2018	0.1416	0.1671	0.2072	2.20E-06	0.02266
6	85462640	rs860844	G	TBX18	ClassF_Giuliani2018	0.1339	0.1634	0.1982	1.01E-05	0.02597
6	157199844	rs17266366	G	ARID1B	ClassF_Giuliani2018	0.2717	0.2632	0.3363	3.84E-05	0.02188
7	45122723	rs61740895	A	NACAD	ClassF_Giuliani2018	0.3367	0.3254	0.4114	7.58E-06	0.02228
7	45124465	rs3735495	A	NACAD	ClassF_Giuliani2018	0.3393	0.3273	0.4129	5.11E-06	0.02228
17	66670126	rs11654241	G		ClassF_Giuliani2018	0.199	0.2061	0.2432	1.16E-04	0.03569
19	9228196	rs1036224	A	OR7G1	ClassF_Giuliani2018	0.2609	0.2646	0.3408	4.44E-04	0.01891
6	85462640	rs860844	G	TBX18	All_Giuliani2018		0.147	0.1982	0.0000693	0.02597
7	45122723	rs61740895	A	NACAD	All_Giuliani2019		0.329	0.4114	0.0000219	0.02228
7	45124286	rs3735494	G	NACAD	All_Giuliani2020		0.3323	0.4114	0.0000238	0.02228
7	45124465	rs3735495	A	NACAD	All_Giuliani2021		0.3312	0.4129	0.0000152	0.02228

identified in HRS
identified in HRS
identified in HRS
identified in HRS

(#) Legend

Class A: SNPs for which CTR > 50 years old showed higher allele frequencies than CTR < 50 years and centenarians, while similar allele frequencies were observed in centenarians and CTR < 50 years old.

Class B: SNPs for which CTR > 50 years old showed lower allele frequencies than CTR < 50 years old and centenarians, while similar allele frequencies in centenarians and CTR < 50 years old were observed.

Class E: these variants significantly decreased in frequency in centenarians, while CTR < 50 years old and CTR > 50 years old showed similar frequencies.

Class F: these variants significantly increased in frequency in centenarians, while CTR < 50 years old and CTR > 50 years old showed similar frequencies.