



## Supplementary material

### Single Nucleotide Variants Associated With Polygenic Hypercholesterolemia in Families Diagnosed Clinically With Familial Hypercholesterolemia

**Table 1 of the supplementary material**

Allele Frequency of Genetic Variants in NFHGH Blood Family Members Comparing Participants with LDL-C < 90th Percentile and Participants with LDL-C  $\geq$  90th Percentile.

Gene	SNV	Nucleotide change	Risk allele	Allelic risk frequency		P
				LDL-C $\geq$ 90 <sup>th</sup> percentile (n = 129)	LDL-C < 90 <sup>th</sup> percentile (n = 139)	
<i>SORT1</i>	rs629301	c.*1635G>T	T	0.833	0.828	.876
<i>APOB</i>	rs1367117	c.293G>A	A	0.323	0.316	.870
<i>ABCG8</i>	rs6544713	c.322+431T>C	C	0.405	0.371	.418
<i>LDLR</i>	rs6511720	c.321+711 G>T	G	0.855	0.815	.212
<i>APOE</i>	rs429358	c.388T>C	C	0.136	0.137	.9912
	rs7412	c.526C>T	C	0.035	0.061	.157
Gene score		Median cholesterol gene score				P

	LDL-C $\geq$ 90 <sup>th</sup> percentile (N = 129)	LDL-C < 90 <sup>th</sup> percentile (N = 139)	
	40.2	37.4	.048

A, adenine; C, cytosine; G, guanine; LDL-C, low-density lipoprotein cholesterol; NFHGH, nonfamilial hypercholesterolemia genetic hypercholesterolemia; SNV, single nucleotide variant; T, thymine.

The *P* value was calculated by the Mann-Whitney *U* or chi-square tests, by comparing mutant vs wild-type allelic frequencies, as appropriate.

### Table 2 of the supplementary material

Linear Regression Analysis of Clinical, Biochemical and Single Nucleotide Variants with Low-density Lipoprotein Concentration in NFHGH Blood Family Members

Variable	B Coefficient	95%CI	<i>P</i>	Corrected R <sup>2</sup>
Age	0.544	1.434-2.259	< .001	0.278
Waist circumference	-0.282	-2.169 to -0.385	.005	
<i>APOE</i> (c.526C>T)	-0.131	-42.451 to -4.602	.015	
<i>APOB</i> (c.293G>A)	0.106	0.086-17.610	.048	

95%CI, 95% confidence interval, NFHGH, nonfamilial hypercholesterolemia genetic hypercholesterolemia.

Linear regression model adjusted for body mass index, age, sex, and waist circumference.