Table S1 Genes and SNPs characteristics

Gene	SNP ID	Chr Position[a]	SNP	SNP Type
CYP4F2	rs2108622	19:15879621	C/T	Missense Variant
APOE	rs7412	19:44908822	C/T	Missense Variant
APOE	rs11083750	19:44908601	C/A C/G C/T	Missense Variant
APOE	rs405509	19:44905579	T/G	2KB Upstream Variant
CYP2A6	rs1801272	19:40848628	A/T	Missense Variant

[a.] Chromosome positions are based on NCBI Human Genome Assembly Build.

Table S2 List of SNPs, their minor allele frequencies, and HWE p-values

Gene	SNP ID	MA[a]	Patients MAF[b]	Controls MAF[b]	HWE[c] P-value
CYP4F2	rs2108622	T	0.35	0.42	0.26
APOE	rs7412	T	0.05	0.02	0.4
APOE	rs405509	T	0.47	0.47	0.33
CYP2A6	rs1801272	T	0.01	0.02	1

[a.] MA: Minor allele.
[b.] MAF: Minor allele frequency.
[c.] HWE: Hardy-Weinberg equilibrium.

Table S3 The distributions of *APOE* haplotype and 211 cardiovascular patients in compare to 213 healthy controls

Gene	Haplotypes	Patients (%)	Controls (%)	Odds ratio (95% CI)	P-value*
APOE	CCG	0.48	0.51	1.00	---
	CCT	0.47	0.47	1.08 (0.82 - 1.42)	0.58
	TCG	0.05	0.02	3.53 (1.36 - 9.21)	**0.01**

*Chi–Square Test with $p<0.05$ is considered significant.

Table S4 The distributions of *APOE* haplotype among 212 warfarin sensitive patients

Gene	Haplotypes	Frequency (%)	Odds ratio (95% CI)	P-value*
APOE	CG	0.50	0.00	---
	CT	0.45	-0.01 (-0.12 - 0.1)	0.84
	TG	0.03	-0.13 (-0.62 - 0.36)	0.59
	TT	0.02	0.2 (-0.25 - 0.66)	0.38

*Chi–Square Test with p<0.05 is considered significant.

Table S5 Post Hoc tests for the Association of *CYP4F2*, *APOE* and *CYP2A6* SNPs with variability on warfarin required doses

Gene	SNP ID	Genotype		Initiation Dose P-value*	Maintenance Dose P-value*
CYP4F2	rs2108622	CC	CT	0.77	0.52
			TT	0.18	0.83
		CT	CC	0.77	0.52
			TT	0.40	0.98
		TT	CC	0.18	0.52
			CT	0.40	0.98
APOE	rs405509	GG	GT	1	0.27
			TT	0.99	0.81
		GT	GG	1	0.27
			TT	0.98	0.70
		TT	GG	0.99	0.81
			GT	0.98	0.70

* Post-Hock Multiple comparisons Test with p<0.05 is considered significant. Com initiation and maintenance dose among all genotypes.
Post hock are not performed for rs1801272 because its fewer than three groups.
Post hoc tests are not performed for rs74125because at least one group has fewer than two cases.

Table S6 The distributions of *APOE* haplotypeamong 212 warfarin responsiveness patients

Gene	Haplotypes	Frequency (%)	Odds ratio (95% CI)	P-value*
APOE	CG	0.49	0.00	---
	CT	0.46	0.04 (-0.05 - 0.13)	0.39
	TG	0.05	-0.15 (-0.37 - 0.07)	0.18

*Chi–Square Test with p<0.05 is considered significant.

Table S7 Post Hoc tests for the association of *CYP4F2*, *APOE* and *CYP2A6* SNPs with INR treatment outcome

Gene	SNP ID	Genotype		Initiation INR P-value*	Maintenance INR P-value*
CYP4F2	rs2108622	CC	CT	0.95	0.98
			TT	0.43	1
		CT	CC	0.95	0.98
			TT	0.32	0.99
		TT	CC	0.43	0.98
			CT	0.32	0.99
APOE	rs405509	GG	GT	0.99	1
			TT	0.89	0.99
		GT	GG	0.99	1
			TT	0.80	0.99
		TT	GG	0.89	0.99
			GT	0.88	0.99

* Post-Hock Multiple comparisons Test with p<0.05 is considered significant. Compare means of the initiation and maintenance dose among all genotypes.
Post hock are not performed for rs1801272because its fewer than three groups
Post hoc tests are not performed for rs74125because at least one group has fewer than two cases.