Table S1. Panel of SNPs investigated.

Gene	Rs Code	Polymorphism	Amino acid	Genotype	Functional effects
Transporters					
ABCB1/MDR 1	rs1128503 rs1045642	C1236T C3435T	Gly412Gly Ile1815=	**T allele leads to lower activity**	Decreased
ABBC1/MRP1	rs45511401	G671V-G>T	Gly671Val		
ABCB1	rs4148738	G>A	Intron	A allele leads to increased	Dabigatran concentration
ABCC2/MRP2	rs8187710 rs17222723	G4544A T3563A	Cys1515Tyr Val1188Glu	A allele leads to lower activity	Decreased
ABCC2 24C>T	rs717620	C5116T	Promoter	T allele leads to lower expression	Lower expression
ABCG2	rs2231142	C421A	Gln141Lys	**A** allele leads to lower expression	Lower expression
SLC15A2-L350F	rs2257212	C>T	Leu350Phe	**-**	-
SLCO1B1	rs4363657	T521C	Intron	**C** allele leads to lower activity	Decreased
	rs4149056	T>C	Val174Ala		
5HTT-LPR		Repeat region	Promoter	S allele leads to lower transcription	
CYP					
CYP1A2*1C	rs2069514	G3860A	None	A allele leads to lower activity	Decreased
CYP1A2*1F	rs762551	C163A	Intron	A allele leads to increased inducibility	Increased
CYP2C19*17	rs12248560	C806T	Upstream	Heterozygous	Increased
CYP2C19*10 **CYP2C19*2** **CYP2C19*3** **CYP2C19*4**	rs6413438 rs4244285 rs4986893 rs28399504	C680T G681A G636A A5026G	Pro227Leu Pro227= Trp212Ter Met1Val	T/A/G alleles leads to lower activity	Deceased
CYP2C19*5 **CYP2C19*7**	rs56337013 rs72558186	C1297T T24319A	Arg433Trp Splice Donor	Homozygous	Increased
CYP2C9*2 **CYP2C9*3**	rs1799853 rs1057910	C430T A1075C	Cys144Arg Ile359Leu	T/C allele leads to lower activity	Decreased
CYP2D6*2 **CYP2D6*XN**	rs16947 -	C2850T -	Arg296Cys Amplification	Homozygous -	Increased
CYP2D6*10 **CYP2D6*17** **CYP2D6*6** **CYP2D6*20**	rs1065852 rs28371706 rs5030655 rs72549354	C100T C1023T 1707delT insG	Pro34Ser Thr107Ile Trp152fs Leu213fs	**Heterozygous**	**Decreased**
CYP2D6*5 **CYP2D6*38**	- rs72549351	Deletion delGACT	Stop codon Thr272fs	-	Decreased

CYP2D6*29	rs61736512	G1659A	Val136Met	A allele leads to lower activity	Decreased
CYP2D6*2A **CYP2D6*3** **CYP2D6*4** **CYP2D6*41** **CYP2D6*7** **CYP2D6*9**	rs1080985 rs35742686 rs3892097 rs28371725 rs5030867 rs5030656	C1584G 2549delA G1846A G2988A A2935C 2615-2617delAAG	Upstream Arg259fs Acceptor Intron His324Pro Inframe del.	Homozygous	Decreased
CYP3A4*1B	rs2740574	A392G	Upstream	Homozygous	Decreased
CYP3A4*22	rs35599367	C15389T	Intron	G alleles lead to increased activity	Increased
CYP3A5*3	rs776746	A6986AG	Acceptor	Heterozygous	Decreased
CYP1A1	rs1048943	T>C	Ile462Val	C allele leads to increased activity	Increased
CYP2B6	rs2279343 rs3745274 rs3211371 rs28399499	A785G G516T C1459T T 983C	Lys262Arg Gln172His Arg487Cys Ile328Thr	G/T allele leads to lower activity	Decreased
CYP2A6	rs28399433 rs1801272	A48C T>A		C/A allele leads to lower expression	Decreased
CYP2C8*2	rs11572103	A805T	Ile269Phe	-	-
CYP2C8*4	rs1058930	C792G	Ile264Met	C allele leads to lower activity	Decreased
Other drug metabolizing enzymes					
TPMT*2	rs1800462	C>G	Ala80Pro	C allele leads to lower activity	Decreased
TPMT*3B **TPMT*3C**	rs1800460 rs1142345	G460A A719G	Ala154Thr Tyr240Cys	Heterozygous	Decreased/Inactive
UGT1A1*28	rs8175347	(TA)(n) repeat sequence	TATA box	6/7 repeat	Decreased
UGT2B17		Delection		Heterozygous	Decreased
DPYD	rs3918290	IVS14+1G>A	Splice donor	Heterozygous	Decreased
	rs67376798	A2846T	Asp949Val	Homozygous	
DPYD*6	rs1801160	G>A	Val732Ile	A allele leads to lower activity	Decrease
DPYD*9A	rs1801265	T>C	Cys29Arg	-	-
DPY	rs2297595	A166G	Initiator Codon	-	-
COMT	rs4680 rs4633	G>A C>T	Val158Met His62His	A/T alleles lead to lower activity	Decreased

COMT	rs4818	C>G	Leu136Leu	G alleles lead to increased activity	Increased
MTHFR	rs1801133 rs1801131	C677T A1298C	Ala222Val Glu429Ala	**T/C alleles lead to lower activity**	Decreased
TYMS	rs45445694	TSER*2/TSER*3	28 bp repeat in enhancer region	Increased transcription	Increased
	rs2853542 rs34743033	TSER*3R G/C	second repeat of 3R allele	Reduced transcription	Decreased
	rs151264360 rs869066439	1494del6b	I/D of TTAAAG sequence on the 3′- UTR	TYMS mRNA instability	Decreased
NAT1*14B	rs4986782	G560A	Arg187Gln	A allele leads to lower activity	Decreased
NAT1*15B	rs5030839	C599T	Stop Codon	-	Inactive
NAT1*17B	rs56379106	C190T	Arg64Trp	C alleles lead to lower activity	Decreased
NAT1*22B	rs56172717	A752T	Asp251Val	T alleles lead to lower activity	Decreased
NAT2*3 **NAT2*6** **NAT2*7**	rs1801280 rs1799930 rs1799931	T341C G590A G857A	Ile114Thr Arg197Gln Gly286Glu	C/A alleles lead to lower activity	Decreased
UMPS	rs1801019	G213A G>C	Gly213Asp Gly213Ala	-	-
CBS	rs234706	C699T	-	Allele T associated with increased risk of ammonia and sulphite detoxification defects	
Receptors					
DRD2/ANKK1-Q713K	rs1800497	C957T		Heterozygous	Reduced dopamine binding sites
DRD2-141-insC/delC	rs1799732	insC/delC	Upstream	Heterozygous	Reduced receptor expression
DRD2-S311C	rs1801028	C932G	Ser311Cys	Heterozygous	Decreased affinity for dopamine
DRD3-S9G	rs6280	A25G	Gly9Ser	Homozygous	Normal
HTR2A	rs6314	C1354T	His452Ty	Heterozygous	-
	rs7997012	A>G	Intron	Homozygous	-
	rs6311	G1438A	Upstream	Homozygous	-
HTR2C	rs6318	G68C	Cys23Ser	Homozygous	Increased cardiovascular events
OPRM1	rs1799971	A118G	Asn40Asp	Heterozygous	More pain
Oxidation reduction enzymes					

GSTP1	rs1695	A313G	Ile105Val	C allele leads to lower activity	Decreased
GSTM1 **GSTT1**		Deletion		Heterozygous	Inactive
			DNA repair enzymes		
ERCC1	rs3212986 rs11615	C8092A T19007C	3 Prime UTR Asn118=	-	-
XRCC1	rs25487	G28152A	Gln399Arg	Heterozygous	Decreased
			Lipid metabolism		
APOA1	rs1799837	G75A		Protective against cardiovascular event	
APOB1	rs5742904	G10580A	Arg3500Gln	Heterozygous	Hypercholesterolemia
CETP	rs1532624	C>A	Intron	-	-
HMGCR	rs3761740 rs5908	C911A A>G	Upstream tra. Ile585Val	-	-
PON1	rs662 rs705379	A575G C108T	Gln192Arg Upstream	G/T alleles lead to lower activity	Decreased
			Coagulation enzymes		
VKORC	rs9923231	G1639A	Upstream	A/T alleles lead to less coagulating capacity	Decreased
	rs9934438	C1173T	Intron		
CES1	rs2244613 rs8192935	A>C C>T	Intron	C allele leads to decreased Dabigatran concentration	
F II	rs1799963	G20210A	3 Prime UTR	-	-
PAI	rs1799889	4G/5G	Upstream	Heterozygous	Increased risk of thrombotic events
F V	rs6025	G1691A	Arg506Gln	A allele Increased	risk of thrombotic events
β-fibrinogen	rs1800790	G455A	-	-	-
FattoreXIII	rs5985	G>T	Val135Leu	-	-

Abbreviation: ABCB1, ATP binding cassette subfamily B member 1; ABCC1, ATP Binding Cassette Subfamily C Member 1; MRP1, Multidrug resistance-associated protein 1; ABCC2, ATP Binding Cassette Subfamily C Member 2; MRP2, Multidrug resistance-associated protein 2; ABCG2, ATP-binding cassette sub-family G membro 2; SLC15A2, Solute Carrier Family 15 Member 2; SLCO1B1, solute carrier organic anion transporter family member 1B1; 5-HTTLPR, serotonin-transporter-linked polymorphic region; CYP1A2, Cytochrome P450 Family 1 Subfamily A Member 2; CYP2C19, cytochrome P450 family 2 subfamily C member 19; CYP2D6 Cytochrome P450 family 2 subfamily D member 6; CYP3A4, Cytochrome P450 family 3 subfamily A member 4; CYP3A5, Cytochrome P450 family 3 subfamily A member 5; CYP1A1 Cytochrome P450 family 1 subfamily A member 1; CYP2B6 Cytochrome P450 family 2 subfamily B member 6; CYP2C8, Cytochrome P450 family 2 subfamily C member 8; TPMT, Thiopurine methyltransferase; UGT1A1, uridine-diphosphoglucuronate glucuronosyltransferase; DPYD, dihydropyrmidinase; COMT, catechol O-methyltransferase; TSER, synthase enhancer region; MTHFR, methylenetetrahydrofolate reductase; TYMS, thymidylate synthase; NAT1, Arylamine N-acetyltransferase 1; NAT2, Arylamine N-acetyltransferase 2; UMPS, Uridine Monophosphate Synthetase; DRD2, dopamine receptor D2; ANKK1, Ankyrin repeat and kinase domain containing 1; HTR2A, 5-Hydroxytryptamine Receptor 2A; HTR2C, 5-Hydroxytryptamine Receptor 2C; OPRM1, Opioid Receptor Mu 1; GSTP1, Glutathione S-Transferase P1; GSTM1, glutathione S-transferase Mu 1; GSTT1, Glutathione S-Transferase Theta 1; ERCC1,Excision Repair 1, Endonuclease Non-Catalytic Subunit; XRCC1, X-ray repair cross complementing protein 1; APOA1, Apolipoprotein A1; APOB1, Apolipoprotein B1; CETP, Cholesteryl ester transfer protein; HMGCR, 3-Hydroxy-3-Methylglutaryl-CoA Reductase; PON1, paraoxonase/arylesterase 1; VKORC, Vitamin K epOxide Reductase Complex; CES1 Carboxylic ester hydrolase; F II, coagulation factor II; PAI, Plasminogen Activator Inhibitor; F V, coagulation factor V; CBS, cystathionine beta-synthase; F XIII, coagulation factor XIII;