

Supplementary Table 5: Drugs used for treating metabolic disorders and their associated genes					
	DrugBank ID	Targets	Enzymes	Carriers	Transporter
Anti-Diabetics					
Acarbose	DB00284	MGAM, AMY2A, GAA, SI			
Canagliflozin	DB08907	SLC5A2	UGT1A9, UGT2B4, CYP3A4	ORM1	ABCB1
Dapagliflozin	DB06292	SLC5A2	CYP2D6 CYP1A2 CYP3A4 CYP2C9 CYP2A6 UGT1A9 CYP1A1 UGT2B7 UGT2B4		ABCB1
Dulaglutide	DB09045	GLP1R			
Empagliflozin	DB09038	SLC5A2			
Exenatide	DB01276	GLP1R	DPP4	ALB	
Glibenclamide	DB01016	ABCA1 CPT1A ABCC9 ABCB11 CFTR KCNJ11 KCNJ8 ABCC8 KCNJ11 TRPM4	CYP3A5 CYP3A4 CYP2C9 CYP2C19 CYP3A7	ALB	ABCB11 ABCC1 SLC15A1 ABCB1 SLCO2B1 ABCC3 SLC22A6 ABCG2 ABCC2 SLC15A2 SLCO1A2 SLC22A7
Gliclazide	DB01120	VEGFA ABCC8	CYP2C9 CYP2C19	ALB	
Glimepiride	DB00222	ABCC8 KCNJ1 KCNJ11	CYP2C9		ABCB11
Glipizide	DB01067	ABCC8 PPARG	CYP2C9 UGT1A1	ALB	ABCB11
Insulin	DB14472				
Linagliptin	DB08882	DPP4	CYP3A4		ABCB1 SLC22A2 SLC22A1 SLC22A3
Liraglutide	DB06655	GLP1R	MME DPP4	ALB	
Metformin	DB00331	GPD1 PRKAB1 ETFDH			SLC22A2 SLC22A1 SLC22A3 SLC47A1 SLC47A2 SLC29A4

Nateglinide	DB00731	ABCC8 PPARG	PTGS1 CYP3A5 CYP2D6 CYP3A4 CYP2C9 UGT1A9 CYP3A7	ALB ORM1	SLC16A1 SLC15A1 SLC22A6 SLC15A2 ABCC4
Pioglitazone	DB01132	PPARA PPARG PPARD MAOB	PTGS1 CYP3A4 CYP2C9 CYP2C8		SLCO1B1 SLCO1B3
Repaglinide	DB00912	ABCC8 PPARG	CYP3A4 CYP2C8	ALB	ABCB11 SLCO1B1
Rosiglitazone	DB00412	PPARA RXRB PPARG RXRA RXRG ACSL4 PPARD	PTGS1 CYP2D6 CYP1A2 CYP3A4 CYP2C9 CYP2C8 CYP2A6	ALB	ABCB11 SLCO1B1
Saxagliptin	DB06335	DPP4	CYP3A5 CYP3A4		ABCC1 SLC22A8 SLCO4C1
Sitagliptin	DB01261	DPP4	CYP3A4 CYP2C8		ABCB1 SLC22A8
Tolbutamide	DB01124	ABCC8 KCNJ1	CYP2C9 CYP2C8 CYP2C19 CYP2C18	ALB	SLC15A1 SLCO2B1 SLC22A6 SLC15A2 SLCO1A2
Vildagliptin	DB04876	DPP4			
Anti-Coagulant, Anti-platelet and Fibrinolytic					
Acenocoumarol	DB01418	VKORC1	CYP1A2 CYP3A4 CYP2C9 CYP2C19	ALB ORM1	ABCB1
Apixaban	DB06605	F10	CYP3A5 CYP1A2 CYP3A4 CYP2C9 CYP2C8 CYP2C19 CYP2J2		ABCB1 ABCG2
Argatroban	DB00278	F2	CYP3A5 CYP3A4	ALB ORM1 ORM2	

Aspirin	DB00945	PTGS1 AKR1C1 PTGS2 CASP1 EDNRA CCND1 HSPA5 IKBKB CASP3 TP53 NFKBIA MYC RPS6KA3 PRKAA1 PRKAA2 PRKAB1 PRKAB2 PRKAG1 PRKAG2 PRKAG3 TNFAIP6 PCNA MAPK1 MAPK15 MAPK3 MAPK4 MAPK6 MAPK7	CYP2C9 CYP2C19 NAT2 UGT1A6		ABCB1 SLC22A6 SLC22A8
Betrixaban	DB12364	F10	F2		KCNH2 ABCB1
Clopidogrel	DB00758	P2RY12	CYP3A5 CYP1A2 CYP3A4 CES1 CYP2C9 CYP2C8 CYP2C19 CYP2B6		ABCB1 SLC22A2 SLC22A1
Dabigatran	DB14726				
Dalteparin	DB06779	VEGFA SERPINC1 TFPI SELP	HPSE		
Dipyridamole	DB00975	PDE5A PDE10A ORM1 PDE4A ADA RCAN1			ABCB11 SLCO1B1 ABCB1 SLCO2B1 ABCC4 ABCC5 SLCO1B3
Edoxaban	DB09075	F10			ABCB1

Eltrombopag	DB06210	MPL	CYP1A2 CYP2C8 UGT1A9 UGT1A1 UGT1A3		SLCO1B1 ABCG2
Enoxaparin	DB01225	F10 SERPINC1	MPO		
Fondaparinux	DB00569	F10 SERPINC1			
Heparin	DB01109	F10 SERPINC1 FGF4 FGF1 FGFR2 FGF2 HGF PF4 SELP FGFR4 FGFR1 FGF19	HPSE	SERPINA7	
Phenprocoumon	DB00946	VKORC1	CYP3A4 CYP2C9 CYP2C8	ALB ORM1	
Prasugrel	DB06209	P2RY12	CYP3A4 CYP2C9 CYP2C19 CYP2B6 CES2	ALB	
Rivaroxaban	DB06228	F10	CYP3A5 CYP3A4 CYP2J2	ABCB1 ABCG2	
Streptokinase	DB00086	PLG F2R	PLA2G4A		
Ticagrelor	DB08816	P2RY12	CYP2D6 CYP3A4 CYP2C9		ABCB1
Tinzaparin	DB06822	SERPINC1 ITGA4 CXCL12	ADAMTS4		
Warfarin	DB00682	VKORC1 NR1I2	CYP1A2 CYP3A4 CYP2C9 CYP2C8 CYP2C19 CYP2C18	ALB ORM1	
Lipid Lowering Agents					

Atorvastatin	DB01076	HMGCR DPP4 HDAC2 AHR NR1I3	CYP3A5 CYP2D6 CYP3A4 CYP2C9 CYP2C8 CYP2C19 UGT1A1 CYP2B6 CYP3A7 UGT1A3	ALB	ABCB11 ABCC1 SLCO1B1 ABCB1 SLCO2B1 ABCC2 ABCC4 ABCC5 SLCO1A2 SLCO1B3
Bezafibrate	DB01393	PPARA RXRB PPARG RXRA RXRG NR1I2 PPARD	CYP3A4 CYP2C8 CYP1A1		SLCO1B1
Clofibrate	DB00636	PPARA	CYP4A11 GSTA2 CYP3A4 CYP2E1 CYP1A1	SERPINA7	
Evolocumab	DB09303		PCSK9		
Ezetimibe	DB00973	SOAT1 NPC1L1 ANPEP	CYP3A4 CYP2C8 UGT1A1 UGT1A3 UGT2B7 UGT2B15		ABCB11 SLCO1B1 ABCB1 ABCC3 ABCG2 ABCC2 ABCG5 ABCG8
Fenofibrate	DB01039	PPARA NR1I2 MMP25	AKR1C1 AKR1C3 AKR1C2 AKR1B1 CES1 CYP2C9 CYP2C8 CBR1 CYP2A6 CYP2C19 UGT1A9	ALB	ABCB11

Fish oils	DB13961	PPARA PPARG PTGS2 PPARD FFAR4 SCN1A SCN10A SCN11A SCN2A SCN3A SCN4A SCN5A SCN7A SCN8A SCN9A SCN1B SCN2B SCN3B SCN4B NFKB2 NFKB1 SREBF1 DGAT2 CACNA1C CACNA1D CACNA1F CACNA1S CACNB1 CACNB2 CACNB3 CACNB4	CYP3A4		
Fluvastatin	DB01095	HMGCR HDAC2	CYP3A5 CYP2D6 CYP3A4 CYP2C9 CYP2C8 CYP2C19 UGT1A1 CYP1A1 CYP2B6 UGT1A3 UGT2B7		SLCO1B1 SLC15A1 SLCO2B1 ABCC2 SLCO1B3
Gemfibrozil	DB01241	PPARA SLCO1B1 SLCO2B1 SLC22A8 SLCO1B3	CYP1A2 CYP3A4 CYP2C9 CYP2C8 CYP2C19 UGT1A9 UGT1A1 UGT1A3 UGT2B7 UGT2B17 UGT2B4	ALB	

Lovastatin	DB00227	ITGAL HMGCR HDAC2	CYP3A4 CYP2C8 CYP2C19 UGT1A1 PON3 UGT1A3 UGT2B7	ALB	ABCB11 SLCO1B1 ABCB1 SLCO2B1 ABCC2 SLCO1A2 SLCO1B3
Pravastatin	DB00175	HMGCR			SLC16A1 ABCB11 SLC22A11 SLCO1B1 ABCB1 SLCO2B1 SLC22A6 ABCG2 ABCC2 SLCO1A2 SLC22A8 SLC22A7 SLCO1B3
Rosuvastatin	DB01098	ITGAL HMGCR	CYP2C9	ALB	SLC7A11 ABCB11 SLCO1B1 SLCO2B1 ABCG2 ABCC2 ABCC4 SLCO1A2 SLC10A1 SLC22A8 SLCO1B3
Simvastatin	DB00641	ITGAL HMGCR HDAC2			
Hypertensives					
Benazepril	DB00542	ACE	MTHFR		SLC15A1 SLC15A2
Captopril	DB01197	MMP9 ACE MMP2 LTA4H BDKRB1		ALB	SLC15A1 ABCB1 SLC22A6
Cilazapril	DB01340	ACE			SLC15A1 ABCB1 SLC15A2
Enalapril	DB00584	ACE		ALB	SLC15A1 ABCB1 SLC22A6 SLCO1A2 SLC22A8 SLC22A7
Fosinopril	DB00492	ACE			SLC15A1 SLC15A2

Lisinopril	DB00722	ACE REN			SLC15A1 SLC15A2
Perindopril	DB00790	ACE SFRP4	BCHE		SLC15A1 SLC15A2
Quinapril	DB00881	ACE	CES1	ALB	SLC15A1 SLC15A2 SLC22A8
Ramipril	DB00178	ACE	BCHE		SLC15A1 SLC15A2
Trandolapril	DB00519	ACE	CES1		SLC15A1 SLC15A2
Candesartan	DB13919	AGTR1	PTGS1 CYP2C9 CYP2C8 UGT1A3		SLCO1B1 ABCB1
Eprosartan	DB00876	AGTR1			ABCC2
Irbesartan	DB01029	AGTR1 JUN	PTGS1 CYP3A4 CYP2C9 CYP2C8 UGT1A3	ALB ORM1 ORM2	
Losartan	DB00678	AGTR1	CYP3A4 CYP2C9 CYP2C8 CYP2C19 UGT1A1 UGT1A3 UGT1A10 UGT2B7 UGT2B17	ALB	ABCB11 ABCB1 SLC22A6 SLC22A12 SLC2A9
Olmesartan	DB00275	AGTR1		ALB	ABCB11 SLCO1B1 ABCC2 SLCO1B3
Telmisartan	DB00966	AGTR1 PPARG	CYP2C19 UGT1A3		ABCB11 ABCB1 ABCG2 ABCC2
Valsartan	DB00177	AGTR1	CYP2C9		SLCO1B1 ABCC2 SLCO1B3
Amiloride	DB00594	SCNN1B SCNN1A AOC1 ASIC1 SCNN1D SCNN1G ASIC2 SLC9A1 PLAU	AOC1		SLC22A4 SLC22A2

Bendroflumethiazide	DB00436	CA1 CA2 SLC12A3 CA4 KCNMA1	TPMT		
Chlortalidone	DB00310	CA1 SLC12A1		ALB	
Furosemide	DB00695	SLC12A1	UGT1A1 PGD	ALB SERPINA7	SLC22A5 SLC22A11 SLC22A6 ABCC2 SLC22A8 SLCO2A1
Hydrochlorothiazide	DB00999	SLC12A3		ALB	SLC22A11 SLC22A6 ABCC4 SLC22A8
Indapamide	DB00808	SLC12A3	CYP3A4		
Metolazone	DB00524	SLC12A3			
Torasemide	DB00214	SLC12A2 SLC12A1	CYP2C9 CYP2C8	ALB	SLC01B1
Xipamide	DB13803	SLC12A2 SLC12A1	CYP2C9 CYP2C8	ALB	SLC01B1
Aliskiren	DB09026	REN	CYP3A4		
Clonidine	DB00575	ADRA2A ADRA2C ADRA1A ADRA2B ADRA1B ADRA1D	CYP3A5 CYP2D6 CYP1A2 CYP3A4 CYP1A1	ALB	SLC22A5 SLC22A4 ABCB1 SLC22A3
Digoxin	DB00390	ATP1A1	CYP11A1		ABCB11 SLC01B1 ABCB1 SLC01A2 SLCO4C1 SLC51A SLC51B
Dopamine	DB00988	DRD1 SLC18A2 DBH DRD5 HTR1A HTR3A DRD4 SLC6A2 DRD3 SLC6A3 HTR7 SLC6A4 DRD2 SOD1 DRD1 DRD5 HTR3B	DBH COMT MAOB MAOA		SLC22A5 SLC22A2 SLC22A1 SLC22A3 POU5F1

Doxazosin	DB00590	ADRA1A ADRA1B ADRA1D KCNH2 KCNH6 KCNH7	CYP2D6 CYP3A4 CYP2C9 CYP2C19		ABCB1 SLC22A1
Eplerenone	DB00700	NR3C2	CYP3A5 CYP3A4 CYP11B2		
Hydralazine	DB01275	P4HA1 AOC3 HIF1A	CYP3A4	ALB	
Isosorbide dinitrate	DB00883	NPR1	CYP2E1		
Ivabradine	DB09083	HCN2	CYP3A4		
Labetalol	DB00598	ADRB1 ADRB2 ADRA1A ADRA1B ADRA1D	CYP2D6 CYP2C19 UGT1A9 UGT1A1 UGT2B7	ALB ORM1 ORM2	ABCB5
Lacidipine	DB09236	CACNA1C CACNA1D CACNA1F CACNA1S CACNB1 CACNB2 CACNB3 CACNB4 CACNA1A	CYP3A4	ALB ORM1	
Lercanidipine	DB00528	CACNG1	CYP3A5 CYP2D6 CYP3A4 CYP3A7		
Methyldopa	DB00968	ADRA2A DDC	COMT		SLC15A1
Moxonidine	DB09242	ADRA2A NISCH			
Prazosin	DB00457	KCNH2 ADRA2A ADRA1A ADRA2B ADRA1B ADRA1D ADRA1A ADRA1B ADRA1D		ORM1	ABCB1 ABCG2 SLC22A1 SLC22A3

Ranolazine	DB00243	ADRB1 ADRA1A ADRA1B ADRA1D SCN1A SCN10A SCN11A SCN2A SCN3A SCN4A SCN5A SCN7A SCN8A SCN9A SCN1B SCN2B SCN3B SCN4B KCNJ12 KCNJ14 KCNJ2 KCNJ4 CACNA1C CACNA1D CACNA1F CACNA1S CACNB1 CACNB2 CACNB3 CACNB4	CYP2D6 CYP3A4	ALB ORM1	ABCB11 ABCB1
Sacubitril	DB09292	MME			SLCO1B1 SLCO1B3
Sodium nitroprusside	DB00325	NPR1	CYP1A1		

Spirolactone	DB00421	AR CYP17A1 PGR NR3C2 SHBG NR3C1 NR1I2 CYP11B2 SRD5A1 SRD5A2" "SRD5A3 CACNG1 CACNG2 CACNG3 CACNG4 CACNG5 CACNG6 CACNG7 CACNG8 CACNA2D1 CACNA2D2 CACNA2D3 CACNA2D4 CACNA1C CACNA1D CACNA1F CACNA1S CACNB1 CACNB2 CACNB3 CACNB4 CACNA1B CACNA1A	CYP11B1 CYP2C8	ALB ORM1 ORM2	ABCB11 ABCB1 ABCC2 SLCO1A2
Terazosin	DB01162	KCNH2 KCNH6 ADRA1A ADRA1B KCNH7 ADRA1D TGFB1			ABCB1
Ambrisenten	DB06403	EDNRB EDNRA	CYP3A5 CYP3A4 CYP2C19 UGT1A9 UGT1A3 UGT2B7		SLCO1B1 ABCB1 SLCO1B3
Bosentan	DB00559	EDNRB EDNRA	CYP3A4 CYP2C9		ABCB11
Epoprostenol	DB01240	P2RY12 PTGIS PTGIR			

Iloprost	DB01088	PTGER1 PTGIR PDE4B PLAT PDE4A PDE4D PDE4C PTGDR2			SLCO2B1 SLCO2A1 SLCO3A1
Macitentan	DB08932	EDNRB EDNRA	CYP3A4 CYP2C19	ALB	
Riociguat	DB08931	GUCY1A2	CYP3A4 CYP2C8 CYP1A1 CYP2J2	ALB ORM1	ABCG2
Selexipag	DB11362	PTGIR	CYP3A4 CES1 CYP2C8		SLCO1B1 ABCB1 SLCO1B3
Sildenafil	DB00203	PDE5A PDE6G PDE6H	CYP3A5 CYP2D6 CYP3A4 CYP2C9 CYP2E1 CYP2C19 CYP3A7		SLCO1B1 ABCB1 ABCC4 ABCC5 ABCC10
Tadalafil	DB00820	PDE11A	CYP3A5 CYP3A4		
Treprostinil	DB00374	P2RY12 PTGIR PPARD	CYP2C9		