

Translational Software Supported Drugs and Associated Genes (Q1 2021)

Category	With Pharmacogenetic Associations*	Generic Name	Trade Name(s)	Therapeutic Class	Pharmacogene(s)	Notes
Anesthesia	No	Propofol	Diprivan	Injectable Anesthetics		
	Yes	Succinylcholine	Anectine, Quelicin	Depolarizing Muscle Relaxants	CACNA1S, RYR1	Pediatric Guidance Available
		Desflurane	Suprane	Inhaled Anesthetics	CACNA1S, RYR1	Pediatric Guidance Available
		Enflurane	Ethrane	Inhaled Anesthetics	CACNA1S, RYR1	Pediatric Guidance Available
		Halothane	Fluothane	Inhaled Anesthetics	CACNA1S, RYR1	Pediatric Guidance Available
		Isoflurane	Forane	Inhaled Anesthetics	CACNA1S, RYR1	Pediatric Guidance Available
		Sevoflurane	Sojourn, Ultane	Inhaled Anesthetics	CACNA1S, RYR1	Pediatric Guidance Available
Cancer	No	Anastrozole	Arimidex	Aromatase Inhibitors		
	Yes	Exemestane	Aromasin	Aromatase Inhibitors		
		Letrozole	Femara	Aromatase Inhibitors		
		Azathioprine	Azasan, Imuran	Thiopurines	TPMT, NUDT15	Pediatric Guidance Available
		Belinostat	Beleodaq	Histone Deacetylase Inhibitors	UGT1A1	
		Capecitabine	Xeloda	Fluoropyrimidines	DPYD	Pediatric Guidance Available
		Cisplatin	Platinol	Platinum Compounds	ACYP2	Pediatric Guidance Available
		Erdafitinib	Balversa	Protein Kinase Inhibitors	CYP2C9	
		Dabrafenib	Tafinlar	Protein Kinase Inhibitors	G6PD	
		Daunorubicin	Cerubidine	Anthracyclines	RARG, SLC28A3, UGT1A6	Pediatrics Only
		Daunorubicin Liposomal	Vyxeos, DaunoXome	Anthracyclines	RARG, SLC28A3, UGT1A6	Pediatrics Only
		Doxorubicin	Adriamycin, Rubex	Anthracyclines	RARG, SLC28A3, UGT1A6	Pediatrics Only
		Doxorubicin Liposomal	Doxil	Anthracyclines	RARG, SLC28A3, UGT1A6	Pediatrics Only
		Erlotinib	Tarceva	Protein Kinase Inhibitors	UGT1A1	
		Fluorouracil	Adrucil, Carac, Efudex	Fluoropyrimidines	DPYD	Pediatric Guidance Available
		Gefitinib	Iressa	Protein Kinase Inhibitors	CYP2D6	
		Irinotecan	Camptosar	Topoisomerase Inhibitors	UGT1A1	
		Irinotecan Liposomal	Onivyde	Topoisomerase Inhibitors	UGT1A1	
		Mercaptopurine	Purinethol, Purixan	Thiopurines	TPMT, NUDT15	Pediatric Guidance Available
		Methotrexate	Trexall	Antifolates	MTHFR	
		Nilotinib	Tasigna	Protein Kinase Inhibitors	UGT1A1	
		Paclitaxel	Taxol, Abraxane	Taxanes	CYP2C8	
		Pazopanib	Votrient	Protein Kinase Inhibitors	UGT1A1, HLA-B*57:01	
		Rasburicase	Elitek	Detoxifying Agents	G6PD	
		Sacituzumab Govitecan-hziy	Trodelyv	Topoisomerase Inhibitors	UGT1A1	
		Tamoxifen	Nolvadex, Soltamox	Anti-Estrogens	CYP2D6	
		Thioguanine	Tabloid	Thiopurines	TPMT, NUDT15	Pediatric Guidance Available
Vincristine	Oncovin, Marqibo Kit, Vincasar PFS	Tubulin Inhibitors	CEP72	Pediatric Guidance Available		
Cardiovascular	No	Amiodarone	Nexterone, Pacerone	Antiarrhythmics		
		Apixaban	Eliquis	Anticoagulants		
		Atenolol	Tenormin	Beta Blockers		
		Betrixaban	Bevyxxa	Anticoagulants		
		Bisoprolol	Zebeta	Beta Blockers		
		Candesartan	Atacand	Angiotensin II Receptor Antagonists		
		Carvedilol	Coreg	Beta Blockers		
		Dabigatran Etxilate	Pradaxa	Anticoagulants		
		Disopyramide	Norpace	Antiarrhythmics		
		Edoxaban	Savaysa	Anticoagulants		
		Eprosartan	Teveten	Angiotensin II Receptor Antagonists		
		Fluvastatin	Lescol	Statins		
		Fondaparinux	Arixtra	Anticoagulants		
		Labetalol	Normodyne, Trandate	Beta Blockers		
		Olmesartan	Benicar	Angiotensin II Receptor Antagonists		
		Prasugrel	Effient	Antiplatelets		

## Translational Software Supported Drugs and Associated Genes (Q1 2021)

Category	With Pharmacogenetic Associations*	Generic Name	Trade Name(s)	Therapeutic Class	Pharmacogene(s)	Notes	
Cardiovascular	No	Quinidine	Quinidine	Antiarrhythmics			
		Rivaroxaban	Xarelto	Anticoagulants			
		Sotalol	Betapace, Sorine, Sotylize	Antiarrhythmics			
		Telmisartan	Micardis	Angiotensin II Receptor Antagonists			
		Ticagrelor	Brilinta	Antiplatelets			
		Valsartan	Diovan, Entresto	Angiotensin II Receptor Antagonists			
			Vorapaxar	Zontivity	Antiplatelets		
		Yes	Atenolol	Tenormin	Beta Blockers	CACNA1C	
	Atorvastatin		Lipitor	Statins	SLCO1B1, CYP3A4		
	Azilsartan		Edarbi, Edarbyclor	Angiotensin II Receptor Antagonists	CYP2C9		
	Clopidogrel		Plavix	Antiplatelets	CYP2C19	Pediatric Guidance Available	
	Flecainide		Tambocor	Antiarrhythmics	CYP2D6		
	Fluvastatin		Lescol	Statins	CYP2C9, ABCG2		
	Hydrochlorothiazide		Esidrix, Microzide	Diuretics	12q15		
	Irbesartan		Avapro	Angiotensin II Receptor Antagonists	CYP2C9		
	Losartan		Cozaar, Hyzaar	Angiotensin II Receptor Antagonists	CYP2C9		
	Lovastatin		Mevacor, Altoprev, Advicor	Statins	CYP3A4, SLCO1B1		
	Metoprolol		Lopressor	Beta Blockers	CYP2D6		
	Mexiletine		Mexitol	Antiarrhythmics	CYP2D6		
	Nebivolol		Bystolic	Beta Blockers	CYP2D6		
	Nitroglycerin		Gonitro, Minitran, Nitro-Dur, Nitromist, Nitrostat	Antianginal Agents	ALDH2		
	Pitavastatin		Livalo	Statins	SLCO1B1		
	Pravastatin		Pravachol	Statins	SLCO1B1		
	Propafenone		Rythmol	Antiarrhythmics	CYP2D6		
	Propranolol		Inderal	Beta Blockers	CYP2D6		
	Ranolazine		Ranexa	Antianginal Agents	CYP2D6		
	Rosuvastatin		Crestor	Statins	SLCO1B1, ABCG2		
	Simvastatin		Zocor	Statins	SLCO1B1, CYP3A4	Pediatric Guidance Available	
	Timolol		Timoptic	Beta Blockers	CYP2D6		
	Torsemide		Demadex	Diuretics	CYP2C9		
Verapamil	Covera-HS, Verelan, Isoptin		Calcium Channel Blockers	CACNA1C			
Warfarin	Coumadin	Anticoagulants	CYP2C9, VKORC1, CYP4F2, CYP2C	Pediatric Guidance Available (CYP2C9, VKORC1)			
Diabetes	No	Chlorpropamide	Diabenese	Sulfonylureas			
		Glimepiride	Amaryl	Sulfonylureas			
		Glipizide	Glucotrol	Sulfonylureas			
		Glyburide	Micronase	Sulfonylureas			
			Tolbutamide	Orinase	Sulfonylureas		
		Yes	Metformin	Glucophage	Biguanides	C11orf65, SLC47A2	
	Nateglinide		Starlix	Meglitinides	CYP2C9, SLCO1B1		
	Pioglitazone		Actos, Oseni	Thiazolidinediones	CYP2C8		
Repaglinide	Prandin, Prandimet		Meglitinides	CYP2C8, SLCO1B1			
Rosiglitazone	Avandia	Thiazolidinediones	CYP2C8				
Gastrointestinal	No	Aprepitant	Emend (Oral)	Antiemetics			
		Fosaprepitant	Emend-IV (Injection)	Antiemetics			
		Granisetron	Sancuso, Sustol	Antiemetics			
		Rolapitant	Varubi	Antiemetics			

## Translational Software Supported Drugs and Associated Genes (Q1 2021)

Category	With Pharmacogenetic Associations*	Generic Name	Trade Name(s)	Therapeutic Class	Pharmacogene(s)	Notes
Gastrointestinal	Yes	Dexlansoprazole	Dexilant, Kapidex	Proton Pump Inhibitors	CYP2C19	Pediatric Guidance Available
		Dolasetron	Anzemet	Antiemetics	CYP2D6	
		Dronabinol	Marinol	Antiemetics	CYP2C9	
		Esomeprazole	Nexium	Proton Pump Inhibitors	CYP2C19	Pediatric Guidance Available
		Fosnetupitant / Palonosetron	Akynzeo-IV (Injection)	Antiemetics	CYP2D6	
		Granisetron	Sancuso, Sustol	Antiemetics	ABCB1	
		Lansoprazole	Prevacid	Proton Pump Inhibitors	CYP2C19	Pediatric Guidance Available
		Metoclopramide	Reglan	Antiemetics	CYP2D6	
		Netupitant / Palonosetron	Akynzeo (Oral)	Antiemetics	CYP2D6	
		Omeprazole	Prilosec	Proton Pump Inhibitors	CYP2C19	Pediatric Guidance Available
		Ondansetron	Zofran, Zuplenz	Antiemetics	CYP2D6, ABCB1	Pediatric Guidance Available (CYP2D6)
		Palonosetron	Aloxi	Antiemetics	CYP2D6	
		Pantoprazole	Protonix	Proton Pump Inhibitors	CYP2C19	Pediatric Guidance Available
Rabeprazole	Aciphex	Proton Pump Inhibitors	CYP2C19	Pediatric Guidance Available		
Gaucher Disease	No	Imiglucerase	Cerezyme	Endocrine-Metabolic Agents		
		Miglustat	Zavesca	Endocrine-Metabolic Agents		
		Taliglucerase alfa	Elelyso	Endocrine-Metabolic Agents		
		Velaglucerase alfa	Vpriv	Endocrine-Metabolic Agents		
	Yes	Eliglustat	Cerdelga	Endocrine-Metabolic Agents	CYP2D6	Pediatric Guidance Available
Gynecology	Yes	Elagolix	Orilissa	Endometriosis Pain Agents	SLCO1B1	
Hematology	Yes	Avatrombopag	Doptelet	Hemostatic Agents	F2, F5	
		Eltrombopag	Promacta	Hemostatic Agents	F5	Pediatric Guidance Available
		Lusutrombopag	Mulpleta	Hemostatic Agents	F2, F5	
Infectious Diseases	No	Amphotericin B	AmBisome, Abelcet	Antifungals		
		Anidulafungin	Eraxis	Antifungals		
		Caspofungin	Cancidas	Antifungals		
		Dolutegravir	Tivicay, Triumeq	Anti-HIV Agents		
		Doravirine	Pifeltro	Anti-HIV Agents		
		Etravirine	Intencele	Anti-HIV Agents		
		Fluconazole	Diflucan	Antifungals		
		Isavuconazonium	Cresemba	Antifungals		
		Itraconazole	Sporanox	Antifungals		
		Micafungin	Mycamine	Antifungals		
		Posaconazole	Noxafil	Antifungals		
		Proguanil	Malarone	Antimalarials		
		Raltegravir	Isentress, Dutrebis	Anti-HIV Agents		
	Rilpivirine	Edurant	Anti-HIV Agents			
	Yes	Abacavir	Ziagen, Epzicom, Trizivir, Triumeq	Anti-HIV Agents	HLA-B*57:01	
		Amikacin	Amikin	Antibiotics - Aminoglycosides	MT-RNR1	Pediatric Guidance Available
		Atazanavir	Reyataz, Evotaz	Anti-HIV Agents	UGT1A1	Pediatric Guidance Available
		Chloroquine	Aralen	Antimalarials	G6PD	
		Dapsone	Aczone	Antibiotics	G6PD	
		Efavirenz	Sustiva	Anti-HIV Agents	CYP2B6	Pediatric Guidance Available
Flucytosine		Ancobon	Antifungals	DPYD		
Gentamicin	Gentamicin	Antibiotics - Aminoglycosides	MT-RNR1	Pediatric Guidance Available		
Hydroxychloroquine	Plaquenil	Antimalarials	G6PD			
Isoniazid	Hyzyd, Rifamate, Rifater	Anti-Tuberculosis Agents	NAT2			

## Translational Software Supported Drugs and Associated Genes (Q1 2021)

Category	With Pharmacogenetic Associations*	Generic Name	Trade Name(s)	Therapeutic Class	Pharmacogene(s)	Notes
Infectious Diseases	Yes	Methylene Blue	Uribel, Urogescic-Blue, Azuphen MB, UTA, Provayblue	Antibiotics	G6PD	
		Neomycin	Neo-Frandin	Antibiotics - Aminoglycosides	MT-RNR1	Pediatric Guidance Available
		Nitrofurantoin	Furadantin, Macrobid, Macrochantin	Antibiotics	G6PD	
		{Norfloxacin}^^	Noroxin	Antibiotics	G6PD	^^ Drug is available to International Customers, where the drug is approved.
		Paromomycin	Humatin	Antibiotics - Aminoglycosides	MT-RNR1	Pediatric Guidance Available
		Peginterferon alfa-2a	Pegasys	Interferons	IFNL3	
		Peginterferon alfa-2b	Pegintron, Sylatron	Interferons	IFNL3	
		Plazomicin	Zemdri	Antibiotics - Aminoglycosides	MT-RNR1	
		Primaquine	Primaquine	Antimalarials	G6PD	
		Quinine	Qulaquin	Antimalarials	G6PD	
		Silver Sulfadiazine	Silvadene, SSD, Thermazene	Antibiotics	G6PD	
		Sulfamethoxazole	Bactrim, Septra	Antibiotics	G6PD	
		Streptomycin	Streptomycin	Antibiotics - Aminoglycosides	MT-RNR1	Pediatric Guidance Available
		Tafenoquine	Krintafel, Arakoda	Antimalarials	G6PD	
Tobramycin	Nebcin	Antibiotics - Aminoglycosides	MT-RNR1	Pediatric Guidance Available		
Voriconazole	Vfend	Antifungals	CYP2C19	Pediatric Guidance Available		
Multiple Sclerosis	Yes	Siponimod	Mayzent	Disease-Modifying Agents	CYP2C9	
Neurology	No	Cannabidiol	Epidiolex	Anticonvulsants		
		Carbamazepine	Tegretol, Carbatrol, Eptol	Anticonvulsants		
		Eslicarbazepine Acetate	Aptiom	Anticonvulsants		
		Ethosuximide	Zarontin	Anticonvulsants		
		Ezogabine	Potiga	Anticonvulsants		
		Felbamate	Felbatol	Anticonvulsants		
		Gabapentin	Neurontin	Anticonvulsants		
		Lacosamide	Vimpat	Anticonvulsants		
		Lamotrigine	Lamictal	Anticonvulsants		
		Levetiracetam	Keppra	Anticonvulsants		
		Oxcarbazepine	Trileptal, Oxtellar XR	Anticonvulsants		
		Perampanel	Fycompa	Anticonvulsants		
		Pregabalin	Lyrica	Anticonvulsants		
		Rufinamide	Banzel	Anticonvulsants		
	{Stiripentol}^^	Diacomit	Anticonvulsants		^^ Drug is available to International Customers, where the drug is approved.	
	Tiagabine	Gabitril	Anticonvulsants			
	Topiramate	Topamax	Anticonvulsants			
	Valproic Acid	Depakote, Depakene	Anticonvulsants			
	Vigabatrin	Sabril	Anticonvulsants			
	Yes	Brivaracetam	Briviact	Anticonvulsants	CYP2C19	
Carbamazepine		Tegretol, Carbatrol, Eptol	Anticonvulsants	HLA-A*31:01, HLA-B*15:02		
Eslicarbazepine Acetate		Aptiom	Anticonvulsants	HLA-B*15:02		
Fosphenytoin		Cerebyx	Anticonvulsants	CYP2C9, HLA-B*15:02	Pediatric Guidance Available	
Lamotrigine		Lamictal	Anticonvulsants	HLA-B*15:02		
Oxcarbazepine		Trileptal, Oxtellar XR	Anticonvulsants	HLA-B*15:02		
Phenobarbital		Luminal	Anticonvulsants	CYP2C19		
Phenytoin	Dilantin	Anticonvulsants	CYP2C9, HLA-B*15:02	Pediatric Guidance Available		

## Translational Software Supported Drugs and Associated Genes (Q1 2021)

Category	With Pharmacogenetic Associations*	Generic Name	Trade Name(s)	Therapeutic Class	Pharmacogene(s)	Notes
Neurology	Yes	Primidone	Mysoline	Anticonvulsants	CYP2C19	
		Zonisamide	Zonegran	Anticonvulsants	CYP2C19	
Pain	No	Alfentanil	Alfenta	Opioids		
		Buprenorphine	Butrans, Buprenex	Opioids		
		Cyclobenzaprine	Flexeril, Amrix	Muscle Relaxants		
		Diclofenac	Voltaren	NSAIDs		
		Fentanyl	Actiq	Opioids		
		Hydromorphone	Dilaudid, Exalgo	Opioids		
		Indomethacin	Indocin	NSAIDs		
		Ketoprofen	Orudis	NSAIDs		
		Ketorolac	Toradol	NSAIDs		
		Levorphanol	Levo Dromoran	Opioids		
		Meperidine	Demerol	Opioids		
		Metaxalone	Skelaxin	Muscle Relaxants		
		Methocarbamol	Robaxin	Muscle Relaxants		
		Milnacipran	Savella	Fibromyalgia Agents		
		Morphine	MS Contin	Opioids		
		Nabumetone	Relafen	NSAIDs		
		Naproxen	Aleve	NSAIDs		
		Oxymorphone	Opana, Numorphan	Opioids		
	Sufentanil	Sufenta	Opioids			
	Sulindac	Clinoril	NSAIDs			
	Tapentadol	Nucynta	Opioids			
	Yes	Benzhydrocodone	Apadaz	Opioids	CYP2D6	
		Carisoprodol	Soma	Muscle Relaxants	CYP2C19	
		Celecoxib	Celebrex	NSAIDs	CYP2C9	Pediatric Guidance Available
		Codeine	Codeine; Fioricet with Codeine	Opioids	CYP2D6	Pediatric Guidance Available
		Dihydrocodeine	Synalgos-DC	Opioids	CYP2D6	
		Fentanyl	Actiq	Opioids	OPRM1	
		Flurbiprofen	Ansaid	NSAIDs	CYP2C9	
		Hydrocodone	Vicodin	Opioids	CYP2D6, OPRM1	Pediatric Guidance Available
		Ibuprofen	Advil, Motrin	NSAIDs	CYP2C9	Pediatric Guidance Available
		{Lornoxicam}^^	Xefo	NSAIDs	CYP2C9	^^ Drug is available to International Customers, where the drug is approved.
		Meloxicam	Mobic	NSAIDs	CYP2C9	Pediatric Guidance Available
Methadone		Dolophine	Opioids	CYP2B6, OPRD1		
Morphine		MS Contin	Opioids	OPRM1, COMT		
Oxycodone		Percocet, Oxycontin	Opioids	CYP2D6	Pediatric Guidance Available	
Piroxicam	Feldene	NSAIDs	CYP2C9			
Tizanidine	Zanaflex	Muscle Relaxants	CYP1A2			
Tramadol	Ultram	Opioids	CYP2D6	Pediatric Guidance Available		
Pulmonology	No	Arformoterol	Brovana	Asthma/COPD		
		Indacaterol	Utibron	Asthma/COPD		
	Yes	Formoterol	Foradil, Symbicort	Asthma/COPD	ADRB2	Pediatrics Only
		Salmeterol	Serevent, Advair	Asthma/COPD	ADRB2	Pediatrics Only

## Translational Software Supported Drugs and Associated Genes (Q1 2021)

Category	With Pharmacogenetic Associations*	Generic Name	Trade Name(s)	Therapeutic Class	Pharmacogene(s)	Notes	
<b>Psychiatry and Addiction Medicine</b>	No	Alprazolam	Xanax	Benzodiazepines			
		Asenapine	Saphris	Antipsychotics			
		Cariprazine	Vraylar	Antipsychotics			
		Clonazepam	Klonopin	Benzodiazepines			
		Clonidine	Kapvay	Anti-ADHD Agents			
		Clozapine	Clozaril	Antipsychotics			
		{Cyamemazine}^^	Tercian	Antipsychotics			^^ Drug is available to International Customers, where the drug is approved.
		Duloxetine	Cymbalta	Antidepressants			
		{Flupenthixol}^^	Depixol, Fluanxol	Antipsychotics			^^ Drug is available to International Customers, where the drug is approved.
		Fluphenazine	Prolixin	Antipsychotics			
		Guanfacine	Intuniv	Anti-ADHD Agents			
		Levomilnacipran	Fetzima	Antidepressants			
		Loxapine	Loxitane, Adasuve	Antipsychotics			
		Lurasidone	Latuda	Antipsychotics			
		Memantine	Namenda	Antidementia Agents			
		Mirtazapine	Remeron	Antidepressants			
		Olanzapine	Zyprexa	Antipsychotics			
		{Periciazine}^^	Neuleptil, Zentiva	Antipsychotics			^^ Drug is available to International Customers, where the drug is approved.
		Pimavanserin	Nuplazid	Antipsychotics			
		Quetiapine	Seroquel	Antipsychotics			
	Thiothixene	Navane	Antipsychotics				
	Trazodone	Oleptro	Antidepressants				
	Trifluoperazine	Stelazine	Antipsychotics				
	Vilazodone	Viiibryd	Antidepressants				
	Ziprasidone	Geodon	Antipsychotics				
	Acamprosate	Campral	Antiaddictives		GRIN2B		
	Amitriptyline	Elavil	Antidepressants		CYP2D6, CYP2C19	Pediatric Guidance Available	
	Amoxapine	Amoxapine	Antidepressants		CYP2D6		
	Amphetamine	Adderall, Evekeo	Anti-ADHD Agents		COMT, CYP2D6		
	Aripiprazole	Abilify, Aristada	Antipsychotics		CYP2D6	Pediatric Guidance Available	
	Atomoxetine	Strattera	Anti-ADHD Agents		CYP2D6	Pediatric Guidance Available	
	Brexipiprazole	Rexulti	Antipsychotics		CYP2D6		
	Buprenorphine	Butrans, Buprenex	[Opioid used as Antiaddictive]		OPRD1		
	Bupropion	Wellbutrin, Zyban, Aplenzin, Contrave	Antiaddictives		ANKK1, CYP2B6		
Chlorpromazine	Thorazine	Antipsychotics		CYP2D6			
Citalopram	Celexa	Antidepressants		CYP2C19, GRIK4, SLC6A4, HTR2A, FKBP5	Pediatric Guidance Available		
Clobazam	Onfi	Benzodiazepines		CYP2C19			
Clomipramine	Anafranil	Antidepressants		CYP2D6, CYP2C19	Pediatric Guidance Available		
Clozapine	Clozaril	Antipsychotics		CYP1A2, HTR2A, HTR2C, MC4R			
[Cocaine Vaccine]**		Antiaddictives		OPRK1	** Drug Under development, not yet FDA approved		
Desipramine	Norpramin	Antidepressants		CYP2D6	Pediatric Guidance Available		
Desvenlafaxine	Pristiq	Antidepressants		CYP2D6			

## Translational Software Supported Drugs and Associated Genes (Q1 2021)

Category	With Pharmacogenetic Associations*	Generic Name	Trade Name(s)	Therapeutic Class	Pharmacogene(s)	Notes
Psychiatry and Addiction Medicine	Yes	Deutetrabenazine	Austedo	Other Neurological Agents	CYP2D6	
		Dexmethylphenidate	Focalin	Anti-ADHD Agents	COMT, ADRA2A	
		Dextroamphetamine	Dexedrine	Anti-ADHD Agents	COMT, CYP2D6	
		Dextromethorphan / Quinidine	Nuedexta	Other Neurological Agents	CYP2D6	
		Diazepam	Valium	Benzodiazepines	CYP2C19	
		Disulfiram	Antabuse	Antiaddictives	DBH	
		Donepezil	Aricept	Antidementia Agents	CYP2D6	
		Doxepin	Silenor	Antidepressants	CYP2D6, CYP2C19	Pediatric Guidance Available
		Escitalopram	Lexapro	Antidepressants	CYP2C19, SLC6A4	Pediatric Guidance Available
		Flibanserin	Addyi	Other Neurological Agents	CYP2C19	
		Fluoxetine	Prozac, Sarafem	Antidepressants	CYP2D6	Pediatric Guidance Available
		Fluvoxamine	Luvox	Antidepressants	CYP2D6, SLC6A4	Pediatric Guidance Available
		Galantamine	Razadyne	Antidementia Agents	CYP2D6	
		Haloperidol	Haldol	Antipsychotics	CYP2D6	
		Iloperidone	Fanapt	Antipsychotics	CYP2D6	Pediatric Guidance Available
		Imipramine	Tofranil	Antidepressants	CYP2D6, CYP2C19	Pediatric Guidance Available
		Levodopa / Carbidopa	Sinemet	[Antiparkinson Agent used as Antiaddictive]	DBH	
		Lisdexamfetamine	Vyvanse	Anti-ADHD Agents	COMT, CYP2D6	
		Lithium	Eskalith, Lithobid	Mood Stabilizers	BDNF	
		Lofexidine	Lucemyra	Antiaddictives	CYP2D6	
		Lorazepam	Ativan	Benzodiazepines	UGT2B15	
		Maprotiline	Ludiomil	Antidepressants	CYP2D6	
		Methadone	Dolophine	[Opioid used as Antiaddictive]	CYP2B6, OPRD1	
		Methylphenidate	Ritalin, Aptensio XR, Concerta, Metadate ER, Quillivant ER	Anti-ADHD Agents	COMT, ADRA2A	
		Naltrexone	Vivitrol, Contrave	Antiaddictives	OPRM1	
		Nefazodone	Serzone	Antidepressants	CYP2D6	
		Nortriptyline	Pamelor	Antidepressants	CYP2D6	Pediatric Guidance Available
		Olanzapine	Zyprexa	Antipsychotics	CYP1A2, HTR2C, MC4R	
		Ondansetron	Zofran, Zuplenz	[Antiemetic used in Addiction Medicine]	SLC6A4	
		Oxazepam	Serax	Benzodiazepines	UGT2B15	
		Paliperidone	Invega	Antipsychotics	CYP2D6, MC4R	
		Paroxetine	Paxil, Brisdelle	Antidepressants	CYP2D6	Pediatric Guidance Available
		Perphenazine	Trilafon	Antipsychotics	CYP2D6	
		Pimozide	Orap	Antipsychotics	CYP2D6	Pediatric Guidance Available
		Protriptyline	Vivactil	Antidepressants	CYP2D6	
		Quetiapine	Seroquel	Antipsychotics	MC4R	
		Risperidone	Risperdal	Antipsychotics	CYP2D6, HTR2C, DRD2, MC4R	
		Sertraline	Zoloft	Antidepressants	CYP2C19	Pediatric Guidance Available
		Tetrabenazine	Xenazine	Other Neurological Agents	CYP2D6	
		Thioridazine	Mellaril	Antipsychotics	CYP2D6	
Topiramate	Topamax	[Anticonvulsant used as Antiaddictive]	GRIK1			
Trimipramine	Surmontil	Antidepressants	CYP2D6, CYP2C19	Pediatric Guidance Available		
Valbenazine	Ingrezza	Other Neurological Agents	CYP2D6			
Venlafaxine	Effexor	Antidepressants	CYP2D6			
Vortioxetine	Trintellix	Antidepressants	CYP2D6			

## Translational Software Supported Drugs and Associated Genes (Q1 2021)

Category	With Pharmacogenetic Associations*	Generic Name	Trade Name(s)	Therapeutic Class	Pharmacogene(s)	Notes
Psychiatry and Addiction Medicine	Yes	{Zuclopenthixol}^^	Clopixol	Antipsychotics	CYP2D6	^^ Drug is available to International Customers, where the drug is approved.
Rheumatology	No	Apremilast	Otezla	Immunomodulators		
		Colchicine	Mitigare	Anti-Hyperuricemics and Anti-Gout Agents		
		Febuxostat	Uloric	Anti-Hyperuricemics and Anti-Gout Agents		
		Tofacitinib	Xeljanz	Immunomodulators		
	Yes	Allopurinol	Zyloprim, Liopurin, Aloprim	Anti-Hyperuricemics and Anti-Gout Agents	ABCG2, HLA-B*58:01	
		Leflunomide	Arava	Immunomodulators	CYP2C19	
		{Lesinurad}^^	Zurampic	Anti-Hyperuricemics and Anti-Gout Agents	CYP2C9	^^ Drug is available to International Customers, where the drug is approved.
		Pegloticase	Krystexxa	Anti-Hyperuricemics and Anti-Gout Agents	G6PD	
		Probenecid	Probalan	Anti-Hyperuricemics and Anti-Gout Agents	G6PD	
		Sulfasalazine	Azulfidine, Sulfazine	Other Antirheumatic Agents	G6PD, ABCG2	
Sjogren's Syndrome	Yes	Cevimeline	Evoxac	Cholinergic Agonists	CYP2D6	
Sleep Disorder Agents	Yes	Pitolisant	Wakix	Narcoleptic Agents	CYP2D6	
Transplantation	Yes	Tacrolimus	Prograf	Immunosuppressants	CYP3A5	Pediatric Guidance Available
Urologicals	No	Alfuzosin	UroXatral	Alpha-Blockers		
		Avanafil	Stendra	Phosphodiesterase Inhibitors		
		Doxazosin	Cardura	Alpha-Blockers		
		Dutasteride	Avodart	5-Alpha Reductase Inhibitors		
		Finasteride	Proscar	5-Alpha Reductase Inhibitors		
		Oxybutynin	Ditropan	Antispasmodics		
		Sildenafil	Viagra	Phosphodiesterase Inhibitors		
		Silodosin	Rapaflo	Alpha-Blockers		
		Solifenacin	Vesicare	Antispasmodics		
		Tadalafil	Cialis	Phosphodiesterase Inhibitors		
		Terazosin	Hytrin	Alpha-Blockers		
		Trospium	Sanctura	Antispasmodics		
		Vardenafil	Levitra	Phosphodiesterase Inhibitors		
	Yes	Darifenacin	Enablex	Antispasmodics	CYP2D6	
		Fesoterodine	Toviaz	Antispasmodics	CYP2D6	
		Mirabegron	Myrbetriq	Antispasmodics	CYP2D6	
		Tamsulosin	Flomax	Alpha-Blockers	CYP2D6	
		Tolterodine	Detrol	Antispasmodics	CYP2D6	