

Pharmacogenomics Gene-Drug List

| GENE | CONDITION | MOLECULE |
|-----------------------|---|--|
| ANKK1 | Alcoholism | Ethanol |
| | Cocaine-Related Disorders | Disulfiram |
| | Epilepsy | Valproic Acid |
| | Heroin Dependence | Methadone |
| | Nicotine Replacement Therapy | Nicotine |
| | Opioid-Related Disorders | Opioids |
| | Psychiatric Disorders | Antipsychotics |
| | | Clozapine |
| | | Olanzapine |
| | | Risperidone |
| | Schizophrenia | Antipsychotics |
| | | Aripiprazole |
| | | Risperidone |
| | | Nemonapride |
| | Tobacco Use Disorder | Drugs Used in Nicotine Dependence |
| Nicotine | | |
| Bupropion | | |
| APOE | Acute Coronary Syndrome | Atorvastatin |
| | Hemorrhage Venous Thromboembolism | Acenocoumarol |
| | | Warfarin |
| | Hypertriglyceridemia | Fenofibrate |
| | HIV Infections Hyperlipidemias Hyperbilirubinemia | Antivirals for Treatment of HIV Infections |
| | | Combinations |
| | | Ritonavir |
| Myocardial Infarction | Simvastatin | |
| COMT | Tobacco Use Disorder | Nicotine |
| | Low Back Pain Pain | Methadone |
| | | Morphine |
| | | Opioids |
| | | Oxycodone |
| | | Remifentanil |
| | | Sufentanil |
| | | Tramadol |
| | Major Depressive Disorder | Selective Serotonin Reuptake Inhibitors |
| | Schizophrenia | Risperidone |
| | | Haloperidol |
| | Methamphetamine Dependence | Modafinil |
| | Drug Toxicity, Neoplasms, Ototoxicity | Cisplatin |
| Tardive Dyskinesia | Antipsychotics | |

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|---|--|-----------------------|
| CYP1A2 | Insomnia | Caffeine |
| | Epilepsy | Carbamazepine |
| | Spontaneous Abortion | Caffeine |
| | Beta-Thalassemia | Deferasirox |
| | Major Depressive Disorder | Escitalopram |
| | | Paroxetine |
| | Schizophrenia | Antipsychotics |
| | | Chlorpromazine |
| | | Clozapine |
| | | Fluphenazine |
| | | Thioridazine |
| | Trifluoperazine | |
| | Non-Small-Cell Lung Carcinoma | Erlotinib |
| Rheumatoid Arthritis | Leflunomide | |
| Gastrointestinal Stromal Tumors | Imatinib | |
| Myocardial Infarction | Caffeine | |
| CYP2B6 | HIV Infections | Efavirenz |
| | | Nevirapine |
| | Heroin Dependence Opioid-Related Disorders | Methadone |
| | Depression | Mirtazapine |
| | Tobacco Use Disorder | Cotinine |
| | | Nicotine |
| | | Bupropion |
| | Breast Neoplasms | Cyclophosphamide |
| | | Doxorubicin |
| | Chronic Myelogenous Leukemia BCR-ABL Positive | Imatinib |
| | Neoplasms Pain | Ketamine |
| Hepatic Veno-Occlusive Disease Transplantation Cystitis Transplantation Leukemia Chronic Lymphocytic B-Cell | Cyclophosphamide | |
| CYP2C8 | Kidney Transplantation | Tacrolimus |
| | | Mycophenolate Mofetil |
| | Breast Neoplasms | Paclitaxel |
| | | Cyclophosphamide |
| | | Epirubicin |
| | | Fluorouracil |
| | Multiple Myeloma Osteonecrosis | Bisphosphonates |
| Pamidronate | | |

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| | | Zoledronate |
| | Diabetes Mellitus, Type 2 | Rosiglitazone |
| CYP2C9 | Cardiovascular Diseases | Warfarin |
| | | Acenocoumarol |
| | | Celecoxib |
| | | Irbesartan |
| | | Simvastatin |
| | | Clopidogrel |
| | | Olanzapine |
| | Diabetes Mellitus, Type 2 | Urea Derivatives |
| | Bipolar Disorder Psychotic Disorders | Valproic Acid |
| Hemopoietic Stem Cell Transplant | Busulfan | |
| Epilepsy | Phenytoin | |
| CYP2C19 | Coronary Artery Disease | Aspirin |
| | | Clopidogrel |
| | | Warfarin |
| | | Prasugrel |
| | Major Depressive Disorder | Citalopram |
| | | Escitalopram |
| | | Sertraline |
| | | Imipramine |
| | Helicobacter Infections Gastroesophageal Reflux Esophagitis Peptic Ulcer | Lansoprazole |
| | | Omeprazole |
| | | Pantoprazole |
| | | Rabeprazole |
| | Mycoses | Voriconazole |
| | Breast Neoplasms | Cyclophosphamide |
| | | Doxorubicin |
| | | Fluorouracil |
| | | Tamoxifen |
| | Pancreatic Neoplasms | Nelfinavir |
| | Kidney Transplantation | Tacrolimus |
| Hemopoietic Stem Cell Transplant | Busulfan | |
| HIV Infections | Nelfinavir | |
| | Etravirine | |
| Epilepsy | Clobazam | |
| Alcoholism | Phenazepam | |
| CYP2D6 | Major Depressive Disorder Mental Disorders Obsessive-Compulsive Disorder Schizophrenia | Paroxetine |
| | | Ondansetron |
| | | Nortriptyline |
| | | Fluvoxamine |
| | | Amitriptyline |

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| | | Clomipramine | |
| | | Desipramine | |
| | | Doxepin | |
| | | Imipramine | |
| | | Trimipramine | |
| | | Venlafaxine | |
| | | Risperidone | |
| | | Olanzapine | |
| | | Citalopram | |
| | | Escitalopram | |
| | | Mianserin | |
| | | Maprotiline | |
| | | Opipramol | |
| | | Zuclopendixol | |
| | | Fluoxetine | |
| | | Sertraline | |
| | | Haloperidol | |
| | | Iloperidone | |
| | | Attention Deficit Disorder with Hyperactivity | Atomoxetine |
| | Pain | | Tramadol |
| | | Oxycodone | |
| Cardiovascular Diseases | | Aspirin | |
| | | Metoprolol | |
| | | Flecainide | |
| | | Propafenone | |
| | | Carvedilol | |
| Alzheimer Disease | | Donepezil | |
| Dementia | | Galantamine | |
| Adenocarcinoma Carcinoma Non-Small-Cell Lung | | Gefitinib | |
| Breast Neoplasms | | Tamoxifen | |
| Postoperative Nausea and Vomiting | | Dolasetron | |
| | | Granisetron | |
| HIV Infections | | Nevirapine | |
| CYP3A4 | | | |
| | Postoperative Pain | | Fentanyl |
| | | | Sufentanil |
| | | | Buprenorphine |
| | Coronary Artery Disease | | Clopidogrel |
| | | | Ticagrelor |
| | | | Amlodipine |
| | | | Simvastatin |
| | | Ticagrelor | |
| Bipolar Disorder | | Risperidone | |

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| | Depression Substance-Related Disorders | |
| | Heroin Dependence | Methadone |
| | Epilepsy | Carbamazepine |
| | Neoplasms | Midazolam |
| | | Paclitaxel |
| | | Bleomycin |
| | | Cisplatin |
| | | Etoposide |
| | | Docetaxel |
| | | Erythromycin |
| | | Everolimus |
| | HIV Infections | Exemestane |
| | | Efavirenz |
| Organ Transplantation | Indinavir | |
| | Tacrolimus | |
| | Sirolimus | |
| Hypertension | Cyclosporine | |
| | Amlodipine | |
| CYP3A5 | Heart Transplantation Hemopoietic Stem Cell Transplant Kidney Transplantation Lung Transplantation Transplant Rejection | Tacrolimus |
| | | Sirolimus |
| | | Cyclosporine |
| | Epilepsy | Carbamazepine |
| | HIV Infections | Maraviroc |
| | | Atazanavir |
| | | Ritonavir |
| Malaria | Lumefantrine | |
| FACTOR 2 | Cardiovascular Disease | Stroke |
| | Venous Thrombosis | Hormonal Contraceptives for Systemic Use |
| FACTOR 5 | Cardiovascular Disease | Stroke |
| | Thrombosis | Hormonal Contraceptives for Systemic Use |
| FACTOR 7 | Coagulation | Warfarin |
| | HTR2A | Depressive Disorder |
| | | Citalopram |
| | | Fluvoxamine |
| | | Escitalopram |
| | | Paroxetine |

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|---------------------------|---|-------------------|
| | | Bupropion |
| | Psychotic Disorders | Antipsychotics |
| | Schizophrenia | Olanzapine |
| | Alzheimer Disease | Olanzapine |
| | | Risperidone |
| | Anxiety Disorders | Venlafaxine |
| | | Escitalopram |
| | Autistic Disorder | Risperidone |
| HTR2C | | |
| | Mental Disorders | Antipsychotics |
| | | Olanzapine |
| | Schizophrenia | Antipsychotics |
| | | Clozapine |
| | | Olanzapine |
| | | Risperidone |
| MTHFR | | |
| | Neoplasms | Methotrexate |
| | | Carboplatin |
| | | Cisplatin |
| | | Fluorouracil |
| | | Bevacizumab |
| | | Pemetrexed |
| | | Cyanocobalamin |
| | | Folic Acid |
| | | Capecitabine |
| | | Leucovorin |
| | | Oxaliplatin |
| | Major Depressive Disorder | L-Methylfolate |
| | | Vitamin B-Complex |
| Schizophrenia | Antipsychotics | |
| | Clozapine | |
| | Olanzapine | |
| Hypertension | Benazepril | |
| Rheumatoid Arthritis | Methotrexate | |
| Cocaine-Related Disorders | Disulfiram | |
| OPRM1 | | |
| | Pain | Opioids |
| | | Morphine |
| | Heroin Dependence | Heroin |
| | | Methadone |
| | Heart Arrest Overdose Respiratory Insufficiency | Antidepressants |
| | | Antipsychotics |
| | | Benzodiazepines |
| | | Opioids |
| | Sympathomimetics | |
| Alcoholism | Ethanol | |

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|---------------------------|---|------------------------------|
| RYR1 | Malignant Hyperthermia | Desflurane |
| | | Enflurane |
| | | Halothane |
| | | Isoflurane |
| | | Methoxyflurane |
| | | Sevoflurane |
| | | Succinylcholine |
| | | Volatile Anesthetics |
| SLCO1B1 | Muscular Diseases Myopathy | Simvastatin |
| | | Hmg Coa Reductase Inhibitors |
| | Hypercholesterolemia | Rosuvastatin |
| | | Fluvastatin |
| | | Atorvastatin |
| | Precursor Cell Lymphoblastic Leukemia-Lymphoma | Methotrexate |
| | | Mercaptopurine |
| | Rhabdomyolysis | Cerivastatin |
| | Tuberculosis | Rifampin |
| | Colorectal Neoplasms | Irinotecan |
| | Non-Small-Cell Lung Carcinoma | Sn-38 |
| | Breast Neoplasms | Cyclophosphamide |
| | | Docetaxel |
| | | Doxorubicin |
| | | Epirubicin |
| | | Fluorouracil |
| Hypertension | Enalapril | |
| Acute Myeloid Leukemia | Cytarabine | |
| | Daunorubicin | |
| | Etoposide | |
| | Mitoxantrone | |
| Diabetes Mellitus, Type 2 | Rosiglitazone | |
| UGT1A1 | HIV Infections | Atazanavir |
| | | Ritonavir |
| | | Indinavir |
| | Neoplasms | Irinotecan |
| | | Sn-38 |
| | | Belinostat |
| | Chronic Myelogenous Leukemia, BCR-ABL Positive | Nilotinib |
| | Renal Cell Carcinoma | Pazopanib |
| | Beta-Thalassemia | Deferasirox |
| | Heart Diseases | Carvedilol |
| | Myocardial Ischemia | Tranilast |
| Hyperprolactinemia | Risperidone | |

Pharmacogenomics Gene-Drug List

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|-----------------|-------------------------|---------------|
| | Osteoporosis | Raloxifene |
| | Osteosarcoma | Methotrexate |
| | Gout | Allopurinol |
| Febuxostat | | |
| VKORC1 | | |
| | Cardiovascular Diseases | Warfarin |
| | | Acenocoumarol |
| | | Phenprocoumon |
| Thromboembolism | Fluindione | |