

Gene/variant	Molecule	Outcome	PMID
<b>Efflux Transporters</b>			
<b>ABCC1 (MRP1)</b>			
rs4148350, rs45511401	Anthracyclines	toxicity	16330681, 21900104, 23441093
rs17501331, rs3743527	Irinotecan	toxicity	27845419
rs212091	Lamivudine, Lopinavir, Ritonavir, Zidovudine	efficacy	23996099
rs2238476, rs246240, rs28364006, rs35592, rs3784864	Methotrexate	efficacy, toxicity	18256692, 25225283, 26086825, 29743634
rs119774	Motelukast	efficacy	16293801
<b>ABCC4 (MRP4)</b>			
rs1678387	Bisphosphonates	toxicity	22267851
rs16950650	Cisplatin	efficacy	23478653
rs9561778	Cyclophosphamide	toxicity	19696793
rs17268282	Furosemide	efficacy	26927285
rs9561765	Imatinib	efficacy	23127916
rs16950651	Irinotecan	efficacy	23478653
rs11568658	Latanoprost	efficacy	25339146
rs3765534	Mercaptopurines	toxicity	18593894, 20393862
rs7317112, rs9516519	Methotrexate	toxicity, pharmacokinetics	23222202, 25348617
rs1059751, rs1751034, rs3742106	Tenofovir	pharmacokinetics	17597712, 18398970, 25801567, 26807589
rs11568659	Valganciclovir	toxicity	274021191
rs11568660	Zodovudine	pharmacokinetics	16791115
<b>ABCC5 (MRP5)</b>			
rs10937158, rs3749438	Fluorouracil, Irinotecan,	toxicity	26352872
<b>ABCG2 (ABCG2)</b>			
rs2231142	Opioids and Anesthetics	efficacy	30136624
rs10011796, rs2231142, rs4148115, rs4148157, rs76979899	Allopurinol	efficacy, dose	25676789, 26810134, 29341237, 30924126
rs2231142	Apixaban	pharmacokinetics	28678049, 29457840
rs2231142	Atorvastatin	pharmacokinetics	19474787
rs2231142	Capecitabine, Fluorouracil, Leucovorin, Oxaliplatin	efficacy	20530282, 24338217
rs13120400	Ceftriaxone	pharmacokinetics	29873816
rs2231142	Cyclophosphamide, Doxorubicin, Fluorouracil	toxicity	29507678
rs13120400	Deferasirox	efficacy, pharmacokinetics	27043265, 27193993, 28346059
rs2231142	Dolutegravir	metabolism, pharmacokinetics	28858994
rs2231142	Efavirenz	toxicity	23859571
rs7699188	Fluorouracil, Irinotecan,	efficacy, toxicity	24018773
rs2231142	Fluvastatin	pharmacokinetics	19842935
rs2231142	Gefitinib	toxicity	17148776, 20035425, 21332310, 25554506
rs2231142	Gemcitabine	efficacy, toxicity	29751792
rs12505410, rs13120400, rs2231137, rs2231142, rs2725252	Imatinib	efficacy, pharmacokinetics	18981009, 24123600, 24322003, 30713339
rs2231137	Irinotecan	toxicity	18221820
rs2231142, rs3114020	Lamotrigine	efficacy, pharmacokinetics	26213157, 27610747, 29791014
rs13137622, rs13120400, rs12505410, rs17731538, rs2231135, rs2231142	Methotrexate	efficacy, toxicity, pharmacokinetics	18256692, 20386493, 25778468, 27217051, 29791011
rs131200400, rs2231142	Rosuvastatin	efficacy	16784736, 19474787, 20130569, 20207952, 20679960, 22331829, 23876492, 23930675, 25630984, 28322941,
rs2231142	Simvastatin	pharmacokinetics	19842935
rs2231142, rs72552713	Sulfasalazine	efficacy, pharmacokinetics	18167504, 24394199, 25872459, 28322941
rs2231142	Sunitinib	toxicity	24013576, 25344452, 26244574
rs2231142	Enofovir	pharmacokinetics	28462920
rs4148157	Topotecan	pharmacokinetics	27052877

<b>Uptake Transporters</b>				
<i>SLC16A1</i> (MCT1)				
N/A				
<i>SLC19A1</i> (RFC1)				
rs1051266	Platinum compounds	efficacy	29662106	
rs12659	Carboplatin, Cisplatin, Fluorouracil	efficacy	16875718	
rs1051266, rs12659	Imatinib	toxicity	30237583	
rs1051266	Irinotecan	efficacy	24143213	
rs1051266, rs2838958, rs9977268	Methotrexate	efficacy, toxicity	12411325, 12915598, 15457444, 15564880, 15677700, 16462575, 17180579, 17264302, 17323057, 17325736, 18322994, 18458567, 19827168, 20335220, 21747412, 22450926, 22838948, 23095111, 24241962, 24350725, 24597986, 25074866, 25303299, 25778468, 26616421, 27217051, 27217051, 27409003, 28525903, 28525903	
rs1051298, rs3788189, rs914232	Pemetrexed	efficacy	19841321, 24732178	
<i>SLC29A1</i> (ENT1)				
rs507964	Mercaptopurine	pharmacokinetics	27941536	
<b>Ion Transporters</b>				
<i>ATP7A</i> (MNK)				
rs2227291	Docetaxel, Thalidomide	toxicity	20038957	
<i>CFTR</i> (CFTR)				
rs113993959, rs75039782, rs77010898	Ataluren	efficacy	18722008, 20622033, 21233271, 24836205	
rs113993960	Cavosonstat	efficacy	28209466	
rs113993960	Cysteamine	efficacy	27035618	
rs113993958, rs113993960, rs115545701, rs11971167, rs121908751, rs121908752, rs121908753, rs121908755, rs121908757, rs121909005, rs121909011, rs121909013, rs121909019, rs121909020, rs121909041, rs121909047, rs141033578, rs150212784, rs1800100, rs1800111, rs186045772, rs193922525, rs202179988, rs267606723, rs34911792, rs368505753, rs397508139, rs397508256, rs397508288, rs397508328, rs397508435, rs397508442, rs397508453, rs397508510, rs397508513, rs397508537, rs397508602, rs397508759, rs74503330, rs74551128, rs75527207, rs75541969, rs77010898, rs77409459, rs77834169, rs77932196, rs78655421, rs78769542, rs80282562	Ivacaftor	efficacy, toxicity	19846789, 21083385, 21602569, 21825083, 21976485, 22047557, 22293084, 22383668, 22942289, 23027855, 23313410, 23590265, 23757359, 23757361, 23891399, 24081349, 24902474, 24973281, 25148434, 25266159, 25698453, 25981758, 26070913, 26324139, 26474553, 26968770, 27007499, 27160424, 27214033, 27298017, 27334259, 27707539, 27805836, 27812499, 27898234, 28325531, 28371569, 28419121, 28606620, 28930490, 28947035, 29099333, 29099344, 29126871, 29279204, 29327948, 29451946	
rs113993960, rs113993960, rs121909011, rs121909047, rs74551128	Lumacaftor	efficacy, toxicity	21825083, 21976485, 24973281, 24973281, 25981758, 27214033, 27298017, 27334259, 27805836, 27898234, 28325531, 28606620, 29126871, 29327948, 29451946	
rs113993960, rs75527207	Tezacaftor	efficacy	28930490, 29099333, 29099344	
<b>Vesicle trafficking</b>				
<i>FLOT1</i> (FLOT1)				
rs3909184	Carbamazepine	hypersensitivity	21738081, 26083016	
<b>Metabolic Enzymes</b>				
<i>CYP4F3</i> (LTB4H)				
N/A				
<i>EPHX1</i> (EPHX1)				
rs1051740, rs2234922	Carbamazepine	dose	15692831, 19620853, 22188362, 23252947, 26314341, 26555147	
rs1051740	Cisplatin, Cyclophosphamide	toxicity	24533712	
rs2234922	Docetaxel	dose	20157331	
rs1051740	Phenprocoumon	efficacy	21057703, 21110013	
rs1051740, rs2234922	Phenytoin	toxicity	19952982	
rs1131873, rs1877724	Warfarin	dose	19794411, 21192345, 21593757, 23061746	