

Table SI. Primer sequences for quantitative PCR.

Name	Sequences (5'→3')
Adora2b-F	GGACCACTCCAGGACCACTCTC
Adora2b-R	AATTGGCATGTGACAGGAGGATGG
Hcar2-F	CATCTGCCTGCCGTTCCCTGAC
Hcar2-R	GATGATGCTGCCCTGTCCGGTTC
Zbtb16-F	GCGACTGGCTGGGACTTTGTG
Zbtb16-R	GCTGGCTGTTTCGGTGGAAGAG
Egr1-F	GCCAGGAGTGATGAACGCAAGAG
Egr1-R	GAGCCAGGAGAGGAGTAGGAAGTG
Atf3-F	GCTTCAACATCCAGGCCAGGTC
Atf3-R	AGAGGACATCCGATGGCAGAGG
Cxcl10-F	CCGCTGCAACTGCATCCATA
Cxcl10-R	GGATAGGCTCGCAGGGATGA
Cxcl2-F	CACTGGTCCTGCTGCTGCTG
Cxcl2-R	GGCGTCACACTCAAGCTCTGG
Cxcl3-F	CACTGGTCCTGCTGCTGCTG
Cxcl3-R	CGTCACCGTCAAGCTCTGGATG
Fpr1-F	GCTCAGAACCACCGCACTGTG
Fpr1-R	ACGGCCACCTTCCTCTTCTCTAC
Nfkb1-F	GACACGACAGAATCCTCAGCATCC
Nfkb1-R	CCACCAGCAGCAGCAGACATG
β-Actin-F	CTGTATGCCTCTGGTCGTAC
β-Actin-R	TGATGTCACGCACGATTTCC

F, Forward; R, Reverse.

Table SII. Prediction of drug-gene interactions.

Drug	Gene	Interaction type	Source	PMID
Siltuximab	IL6	Inhibitor, antibody, antagonist	MyCancerGenome, ChembIInteractions, DrugBank	8823310
Danazol	CCL2	Inhibitor	DrugBank	11056242, 11216879
Niacin	HCAR2	Agonist	TdgClinicalTrial, GuideToPharmacologyInteractions, DrugBank, TTD	16018973, 12522134, 12646212, 16099840, 15580557
Carvedilol	SELE	Inhibitor	DrugBank	15374848
Rilonacept	IL1A	Binder	TdgClinicalTrial, TEND, DrugBank	23319019, 23553601
Rilonacept	IL1RN	Binder	DrugBank	23319019, 12815153
Canakinumab	IL1B	Antibody, binder, inhibitor	MyCancerGenome, TdgClinicalTrial, ChembIInteractions, TEND, DrugBank, TTD	19169963
Gallium nitrate	IL1B	Inhibitor, antagonist	DrugBank, TTD	16122880
Rilonacept	IL1B	Binder, inhibitor	ChembIInteractions, DrugBank, TTD	23319019, 23553601
Lenalidomide	PTGS2	Negative modulator	DrugBank	15598423, 12720152
Piroxicam	PTGS2	Inhibitor	TdgClinicalTrial, ChembIInteractions, DrugBank, TTD	11952155, 11785774, 11153163, 11752352, 15464832, 10381057
Diflunisal	PTGS2	Inhibitor	TdgClinicalTrial, ChembIInteractions, TEND, DrugBank, TTD	11315375, 8737748, 12852483, 11673972, 10825891, 11752352
Salsalate	PTGS2	Inhibitor	TdgClinicalTrial, TEND, DrugBank	9711054, 10452868, 16808554, 12901032
Pomalidomide	PTGS2	Inhibitor	DrugBank	17308870
Indomethacin	PTGS2	Inhibitor	ChembIInteractions, TEND, DrugBank	15668944, 15730717, 15831440, 15770365, 15667901
Nabumetone	PTGS2	Inhibitor	TdgClinicalTrial, ChembIInteractions, TEND, DrugBank, TTD	11304699, 12047490, 11153163, 11752352, 15456329, 7615202
Mefenamic acid	PTGS2	Inhibitor	TdgClinicalTrial, ChembIInteractions, TEND, DrugBank, TTD	10393680, 15792781, 9626023, 17150210, 7832763, 11752352
Etodolac	PTGS2	Inhibitor	TdgClinicalTrial, ChembIInteractions, TEND, DrugBank, TTD	12824918, 11009046, 11275997, 11752352, 10594327, 15198222
Antipyrine	PTGS2	Inhibitor	DrugBank	11695253
Tenoxicam	PTGS2	Inhibitor	TdgClinicalTrial, TEND, DrugBank, TTD	11563332, 16245223, 9152412, 11752352, 15943176, 15756931
Balsalazide disodium	PTGS2	Inhibitor	ChembIInteractions, DrugBank	17981262, 12950415, 17139284, 17016423, 19743890
Oxaprozin	PTGS2	Inhibitor	TdgClinicalTrial, ChembIInteractions, TEND, DrugBank	19338579, 9831331, 9650852, 19952416, 12065695, 17024689
Nepafenac	PTGS2	Inhibitor	TdgClinicalTrial, ChembIInteractions, TEND, DrugBank	10850857
Carprofen	PTGS2	Inhibitor	TdgClinicalTrial, ChembIInteractions, TEND, DrugBank, TTD	15939622, 11752352, 17181139, 11703020, 15198222, 10895904

Table SII. Continued.

Drug	Gene	Interaction type	Source	PMID
Ketoprofen	PTGS2	Inhibitor	TdgClinicalTrial, ChemblInteractions, TEND, DrugBank, TTD	14513718, 11729362, 11752352, 11814865, 15198222, 10895904
Tiaprofenic acid	PTGS2	Inhibitor	TdgClinicalTrial, TEND, DrugBank, TTD	2277128, 11752352, 17139284, 17016423
Etoricoxib	PTGS2	Inhibitor	PharmGKB, TdgClinicalTrial, ChemblInteractions, TEND, DrugBank, TTD	17573128, 17164136, 17691997, 11752352, 17139284, 17016423
Lornoxicam	PTGS2	Inhibitor	DrugBank	20399943, 10450786, 17516707, 11846620
Sulindac	PTGS2	Inhibitor	TdgClinicalTrial, ChemblInteractions, TEND, DrugBank	11118042, 10372826, 10657949, 10485483, 11078056
Nimesulide	PTGS2	Inhibitor	PharmGKB, DrugBank, TTD	16846549, 11752352
Salicylic acid	PTGS2	Inhibitor	TdgClinicalTrial, TEND, DrugBank	15035793, 15348270, 15070163, 15199473, 17259377, 5284360, 15106733
Naproxen	PTGS2	Inhibitor	TdgClinicalTrial, ChemblInteractions, TEND, DrugBank, TTD	17604186, 17612049, 17607546, 11752352, 17521299, 17532719
Parecoxib	PTGS2	Inhibitor	TdgClinicalTrial, DrugBank	10794682
Thalidomide	PTGS2	Antagonist	TdgClinicalTrial, DrugBank	12710892, 15446566, 15982930, 21507989, 15598423, 15892618
Aminosalicylic acid	PTGS2	Inhibitor	DrugBank	16855178, 12463455, 14742690, 12208114, 9256165
Aspirin	PTGS2	Inhibitor	TdgClinicalTrial, ChemblInteractions, CIViC, TEND, DrugBank	17522398, 17181859, 17258197, 17301265, 11752352, 17037745, 17033106
Mesalamine	PTGS2	Inhibitor	TdgClinicalTrial, ChemblInteractions, TEND, DrugBank	16855178, 12463455, 14742690, 12208114, 9256165
Sulfasalazine	PTGS2	Inhibitor	TdgClinicalTrial, ChemblInteractions, DrugBank	16855178, 12463455, 14742690, 12208114, 9256165
Meloxicam	PTGS2	Inhibitor	TdgClinicalTrial, ChemblInteractions, TEND, DrugBank, TTD	10567199, 10220944, 11752352, 10381787, 10340919, 10381057
Acetylcysteine	SLC7A11	Activator	DrugBank	21118657
Sulfasalazine	SLC7A11	Inhibitor	DrugBank	11752352, 11587223
Riluzole	SLC7A11	Inducer	TdgClinicalTrial, DrugBank	10899284, 20226190, 12629173, 20059984, 8813989
Pomalidomide	TNF	Inhibitor	DrugBank	22917017

Table SII. Continued.

Drug	Gene	Interaction type	Source	PMID
Infliximab	TNF	Antibody, inhibitor	PharmGKB, TdgClinicalTrial, ChemblInteractions, TEND, DrugBank, TTD	16456024, 16052578, 12110154, 15481318, 15691299, 15674127, 15804598, 11752352, 15691217, 17642244, 16622728
Thalidomide	TNF	Inhibitor	TdgClinicalTrial, TEND, DrugBank, TTD	8755512, 12046682, 12167383, 12105857, 12102294, 11752352, 12113124
Certolizumab pegol	TNF	Inhibitor, antibody, neutralizer	TdgClinicalTrial, ChemblInteractions, TEND, DrugBank, TTD	23620660
Adalimumab	TNF	Inhibitor, antibody	PharmGKB, TdgClinicalTrial, ChemblInteractions, TEND, DrugBank, TTD	12044041, 15022409, 14532145, 15046527, 11752352, 15200343
Inamrinone	TNF	Inhibitor	DrugBank	11805217, 1611705, 10075051, 11969359, 10444479
Etanercept	TNF	Inhibitor, antibody	PharmGKB, TdgClinicalTrial, ChemblInteractions, TEND, DrugBank, TTD	10375846, 10405518, 10206649, 11752352, 10338381, 10357816
Golimumab	TNF	Inhibitor, antibody	TdgClinicalTrial, ChemblInteractions, TEND, DrugBank, TTD	21079302
Dalteparin sodium	SELP	Inhibitor	DrugBank	11044537
Carvedilol	GJAI	Other	NCI, DrugBank	16448880, 16563290
Sucralfate	FGG	Antagonist	DrugBank	6892775
Thalidomide	ORM1	Binder	DrugBank	8755512
Theophylline	ADORA2B	Antagonist	TdgClinicalTrial, GuideToPharmacologyInteractions, ChemblInteractions, TEND, DrugBank	12954362, 16545350, 15980878, 11752352, 3588607, 16581066
Misoprostol	PTGER4	Agonist	GuideToPharmacologyInteractions, DrugBank	18472336, 16039053, 11993717, 12097143, 9313928, 11602631
Dinoprostone	PTGER4	Agonist	TdgClinicalTrial, GuideToPharmacologyInteractions, TEND, DrugBank	17329241, 16545798, 18715952, 20599704, 19788928
Menadione	PROZ	Activator	TEND, DrugBank	17139284, 17016423
Carvedilol	VCAM1	Inhibitor	DrugBank	17139284, 15374848, 17016423
Belatacept	CD86	Inhibitor	TdgClinicalTrial, GuideToPharmacologyInteractions, ChemblInteractions, DrugBank	18269922
Abatacept	CD86	Binder, antagonist, inhibitor	TdgClinicalTrial, GuideToPharmacologyInteractions, ChemblInteractions, TEND, DrugBank, TTD	18041889, 17020493, 16971318, 16932686, 17212998, 11752352, 16357751, 16573350, 20080922
Atezolizumab	CD274	Inhibitor, antibody	MyCancerGenome, ChemblInteractions, CGI, CIViC, DrugBank, CancerCommons, FDA	26970723, 26918451, 28472902
Avelumab	CD274	Antibody	MyCancerGenome, ChemblInteractions, CIViC, FDA	26918451, 28472902
Arsenic trioxide	TXNRD1	Inhibitor	TdgClinicalTrial, ChemblInteractions, TEND, DrugBank	17640917
Carvedilol	HIF1A	Modulator	DrugBank	15732037

Table SII. Continued.

Drug	Gene	Interaction type	Source	PMID
Canagliflozin	SLC5A1	Inhibitor	GuideToPharmacologyInteractions, DrugBank	23590413
Ruxolitinib	JAK2	Inhibitor	MyCancerGenome, TdgClinicalTrial, OncoKB, CKB, GuideToPharmacologyInteractions, CGI, DrugBank, DoCM, MyCancerGenomeClinicalTrial	18805579, 16293597, 24398328, 25260694, 25515960, 20339092, 21926964, 23400675, 22829971, 15781101, 16081687, 22271575, 22955920, 20631743, 25207766, 19287384, 20585391, 21120162, 22041374, 16709929, 24251790, 23061804, 22875628, 19470474, 18394554, 21689158, 23115274, 21393331, 23514013, 22368270, 25157968, 22818858, 23630205, 24986690, 24404189, 22422826, 26472029, 22899477, 22571758
Tofacitinib	JAK2	Inhibitor, antagonist	DrugBank	10592235
Thalidomide	NFKB1	Antagonist	TdgClinicalTrial, TEND, DrugBank	11752352, 15723633
Glucosamine	NFKB2	Antagonist	DrugBank	12681956
Aspirin	NFKB2	Antagonist	DrugBank	8052854
Lumacaftor	CFTR	Modulator	TdgClinicalTrial, ChemblInteractions, DrugBank, FDA	26416827
Glyburide	CFTR	Channel blocker, antagonist	GuideToPharmacologyInteractions, DrugBank	12407077, 12202948, 12391048, 14729151, 15365090
Bumetadine	CFTR	Antagonist	DrugBank	9886939
Crofelemer	CFTR	Antagonist, inhibitor	TdgClinicalTrial, GuideToPharmacologyInteractions, ChemblInteractions, DrugBank	19808995
Ivacaftor	CFTR	Potentiator, activator	PharmGKB, TdgClinicalTrial, GuideToPharmacologyInteractions, ChemblInteractions, DrugBank, FDA	22293084
Lisinopril	ACE2	Inhibitor	TdgClinicalTrial, DrugBank	11030016, 11929321, 11752352, 1536695
Sargramostim	CSF2RB	Agonist	TdgClinicalTrial, ChemblInteractions, TEND, DrugBank	17139284, 17016423, 1424804
Dasatinib	EPHA2	Inhibitor, antagonist	TdgClinicalTrial, ChemblInteractions, CGI, TEND, DrugBank, DoCM, MyCancerGenomeClinicalTrial	19010823, 19861960, 20360610, 20072833, 18047674, 17139284, 17016423
Acetoxhydroxamic acid	MMP12	Inhibitor	DrugBank	16899369, 15809432, 17269766, 16959356
Rivaroxaban	F10	Antagonist, inhibitor	TdgClinicalTrial, GuideToPharmacologyInteractions, ChemblInteractions, DrugBank	20135071, 20424181, 10592235

Table SII. Continued.

Drug	Gene	Interaction type	Source	PMID
Apixaban	F10	Inhibitor	TdgClinicalTrial, GuideToPharmacologyInteractions, ChemblInteractions, DrugBank, TTD	17371192, 18393142
Edoxaban	F10	Inhibitor	TdgClinicalTrial, GuideToPharmacologyInteractions, DrugBank	18096568
Fondaparinux sodium	F10	Inhibitor	DrugBank, TTD	19825921
Menadione	F10	Activator	TEND, DrugBank	17139284, 17016423
Interferon alfa-2A	IFNAR2	Agonist	ChemblInteractions, TEND, DrugBank	18230610, 15898717
Peginterferon alfa-2B	IFNAR2	Binder, agonist	GuideToPharmacologyInteractions, ChemblInteractions, DrugBank, TTD	16953837, 11752352, 17139284, 17016423, 15898717, 19955815
Interferon beta-1A	IFNAR2	Agonist, binder	ChemblInteractions, DrugBank, TTD	16912135, 11747625
Interferon beta-1B	IFNAR2	Binder, agonist	ChemblInteractions, TEND, DrugBank, TTD	10049744, 11752352
Interferon alfacon-1	IFNAR2	Agonist, binder	ChemblInteractions, TEND, DrugBank, TTD	12528473, 8836913, 11752352
Interferon alfa-N3	IFNAR2	Binder, agonist	ChemblInteractions, TEND, DrugBank, TTD	16953837, 11752352, 17139284, 17016423, 15898717, 19955815
Interferon alfa-2B	IFNAR2	Agonist, binder	ChemblInteractions, TEND, DrugBank	11752352, 17139284, 17016423, 7584665
Peginterferon alfa-2A	IFNAR2	Binder, agonist	ChemblInteractions, DrugBank, TTD	16953837, 11752352, 15898717, 19955815
Glutamine	GLUL	Product of	DrugBank	16382338, 16326016, 16547651, 16530878, 16484281
Quinethazone	SLC12A2	Inhibitor	DrugBank	19474192, 19636250, 12538756, 20528637
Bumetadine	SLC12A2	Inhibitor	TdgClinicalTrial, GuideToPharmacologyInteractions, TEND, DrugBank	10567922, 11292635, 11443057, 11698253, 10831596
Icatibant	BDKRB2	Antagonist	TdgClinicalTrial, TEND, DrugBank, TTD	14514033, 11752352
Eflornithine	ODC1	Inhibitor, blocker, antagonist	TdgClinicalTrial, GuideToPharmacologyInteractions, DrugBank	1730582
Ustekinumab	IL12B	Inhibitor, antibody	TdgClinicalTrial, ChemblInteractions, TEND, DrugBank, TTD, FDA	17761156, 17979029, 27433311, 27306074
Sulfapyrazone	ABCC1	Modulator, inhibitor	TdgClinicalTrial, TEND, DrugBank, TTD	10727523, 9885294, 10917554, 11752352, 15044619, 9685354
Dyphylline	PDE7B	Inhibitor	TdgClinicalTrial, TEND, DrugBank	17139284, 17016423
Pramlintide	RAMP3	Agonist	TdgClinicalTrial, GuideToPharmacologyInteractions, TEND, DrugBank	15494035, 18593822, 11772274, 20357016, 20015292, 17139284, 19273748, 17016423
Amcinonide	ANXA1	Agonist	TEND, DrugBank	7981624, 17139284, 17016423
Cladribine	PNP	Inducer	DrugBank	3260648, 10500836, 8521855, 6808516, 10444166
Tiludronic acid	PTPN1	Inhibitor	TdgClinicalTrial, TEND, DrugBank	9145236

Table SII. Continued.

Drug	Gene	Interaction type	Source	PMID
Oxglutamate	GSR	Inhibitor	GuideToPharmacologyInteractions, ChemblInteractions, DrugBank	17139284, 17016423
Carmustine	GSR	Inhibitor	TdgClinicalTrial, ChemblInteractions, TEND, DrugBank	1312851, 3806383, 10378469, 1394620, 12477282, 15104113, 15321730, 6094175
Niacin	NNMT	Binder	TdgClinicalTrial, DrugBank	17139284, 18996527, 17016423
Cinnarizine	CACNA1S	Inhibitor	DrugBank	1281221, 3530295
Nisoldipine	CACNA1S	Blocker, inhibitor	ChemblInteractions, DrugBank	16675661
Isradipine	CACNA1S	Blocker, inhibitor	ChemblInteractions, DrugBank	16675661
Nifedipine	CACNA1S	Blocker, inhibitor	ChemblInteractions, DrugBank	16675661
Nimodipine	CACNA1S	Blocker, inhibitor	ChemblInteractions, DrugBank	20661350, 17705883, 16675661, 20335610, 20334460, 19844625
Verapamil	CACNA1S	Inhibitor	TdgClinicalTrial, TEND, DrugBank	19125880
Nitrendipine	CACNA1S	Inhibitor	DrugBank	16675661
Clevidipine	CACNA1S	Blocker	TdgClinicalTrial, ChemblInteractions, DrugBank	15492770
Felodipine	CACNA1S	Blocker, inhibitor	TdgClinicalTrial, ChemblInteractions, DrugBank	16675661
Sulindac	MAPK3	Inhibitor	DrugBank	15548677, 16546990, 11245463, 12566304, 16138927
Arsenic trioxide	MAPK3	Inducer	TdgClinicalTrial, DrugBank	17158527, 12472888, 14516795, 14674888, 15849723
Triamterene	SCNN1B	Blocker, inhibitor	TdgClinicalTrial, ChemblInteractions, TEND, DrugBank	8772124, 11509829, 17139284, 17016423
Ribavirin	IMPDH1	Inhibitor	GuideToPharmacologyInteractions, ChemblInteractions, DrugBank	16293677, 16152757, 16421290, 11752352
Mycophenolate mofetil	IMPDH1	Inhibitor	TdgClinicalTrial, GuideToPharmacologyInteractions, ChemblInteractions, TEND, DrugBank	17713475, 17463174, 11752352, 17139284, 17851563, 17016423
Mercaptopurine	IMPDH1	Inhibitor	DrugBank	11752352, 18506437
Mycophenolic acid	IMPDH1	Inhibitor	TdgClinicalTrial, GuideToPharmacologyInteractions, ChemblInteractions, TEND, DrugBank	16629948
Mexiletine	AHR	Agonist	DrugBank	17327465
Flutamide	AHR	Agonist	DrugBank	17327465
Leflunomide	AHR	Agonist	DrugBank	20957046, 17327465
Nimodipine	AHR	Agonist	DrugBank	17327465
Dextrothyroxine	THRA	Agonist	ChemblInteractions, DrugBank	14596673, 17315033, 12955882, 15283690, 15235154, 20615127, 11752352, 17139284, 17016423, 15240882
Levocarnitine	CPT1A	Activator	DrugBank	12705401, 15647998, 16362726, 11752352, 14711372, 16283381

Table SII. Continued.

Drug	Gene	Interaction type	Source	PMID
Trastuzumab emtansine	ERBB2	Inhibitor	TdgClinicalTrial, OncoKB, CKB, ChembIInteractions, CGI, CIViC, FDA	27900589, 17192538, 16091755, 23871490, 22257673, 28040715, 11248153, 24793816, 22149875, 28526536, 21768458, 24898067, 22153890, 10561337, 19786658, 20730488, 24879797, 21458915, 25789838, 23382472, 17591827, 23602601, 19060928, 21172893, 16236738, 23020162, 16452222, 16236737, 26920887
Trastuzumab	ERBB2	Inhibitor, antibody	TALC, PharmGKB, ClarityFoundationBiomarkers, MyCancerGenome, TdgClinicalTrial, ClarityFoundationClinicalTrial, OncoKB, CKB, GuideToPharmacologyInteractions, ChembIInteractions, NCI, CGI, CIViC, DrugBank, DoCM, TTD, FDA	27900589, 26619011, 17192538, 16091755, 17936563, 17216002, 23871490, 22257673, 19840887, 2013, 21676217, 26759238, 26598547, 24470511, 27687302, 28784859, 27140927, 11248153, 27108243, 22908275, 21107682, 18555254, 26880266, 15236790, 26296355, 22149875, 23801166, 15581051, 26469692, 22850551, 24691421, 25601188, 24606768, 24982373, 26104654, 17660958, 20728210, 11098307, 20975068, 21768458, 17679724, 27626067, 23948973, 26099744, 28167203, 23940356, 19289619, 23204226, 22153890, 24742739, 28539475, 15911866, 26245675, 10561337, 19786658, 20730488, 25693012, 11752352, 19874578, 20003286, 17591827, 25157968, 2605, 2320880, 21558396, 18690878, 25370464, 26432108, 23602601, 16397024, 19060928, 24300914, 16236738, 22493419, 27697991, 26243863, 16596213, 12525520, 23020162, 16452222, 16236737, 20124187



Table SII. Continued.

Drug	Gene	Interaction type	Source	PMID
Pertuzumab	ERBB2	Inhibitor, antibody	TALC, PharmGKB, ClarityFoundationBiomarkers, MyCancerGenome, TdgClinicalTrial, OncoKB, CKB, GuideToPharmacologyInteractions, ChemblInteractions, CGI, CIViC, DrugBank, TTD, FDA	17192538, 16091755, 23871490,
				22257673, 11248153, 22586653,
				22149875, 23801166, 21768458,
				23940356, 27052654, 22153890,
				28539475, 10561337, 19786658,
				20730488, 25693012, 17591827,
				15093539, 23602601, 19060928,
				16236738, 23020162, 16452222,
				16236737
				26545934, 16470840, 23220880,
				17638894, 16818711
				27256378, 28830912
				Gefitinib
27044931, 23632474, 24971884,				
22325357, 27923043, 25589492,				
23775486, 28363995, 23578997,				
26964772, 26559459, 23948973,				
28167203, 23816960, 22418700,				
18408761, 20142587, 25370464,				
26243863, 21617858, 26596672				
26619011, 17192538, 20179222,				
16091755, 27595477, 12214266,				
24516025, 23871490, 22257673,				
20110044, 18413839, 27687302,				
27197158, 27140927, 11248153,				
Ibrutinib Afatimib	ERBB2 ERBB2	Inhibitor Inhibitor Inhibitor	CKB, GuideToPharmacologyInteractions TALC, MyCancerGenome, TdgClinicalTrial, OncoKB, CKB, GuideToPharmacologyInteractions, CGI, CIViC, DrugBank, MyCancerGenomeClinicalTrial, TTD	15374980, 26270481, 27108243,
				22908275, 24971884, 14633707,
				22586653, 27760111, 26296355,
				22149875, 2015169, 18774637,
				27450453, 16894399, 27900369,
				21768458, 23948973, 14751502,
				27026198, 23940356, 25398453,
				22153890, 24868024, 26245675,
				10561337, 19786658, 20730488,
				12467226, 26811533, 11752352,
				14737100, 18803986, 19791830,
				17591827, 25157968, 15163842,
				Lapatinib

Table SII. Continued.

Drug	Gene	Interaction type	Source	PMID
Pramlintide	RAMP2	Agonist	TdgClinicalTrial, TEND, DrugBank	22046346, 23220880, 25435280, 26432108, 23602601, 23950206, 16397024, 19060928, 26487584, 25221644, 16236738, 20658522, 22493419, 27697991, 26243863, 23020162, 16452222, 14967461, 16236737, 25238247, 20124187, 25694417, 26628478, 26920887, 15494035, 18593822, 20015292, 17139284, 19273748, 17016423
Fingolimod	SIPR5	modulator	DrugBank	23579456, 23579459
Chlormerodin	ALDH5A1	Inhibitor	DrugBank	5692397, 11752352, 17139284, 17016423
Blinatumomab	CD19	Activator, antibody	TdgClinicalTrial, GuideToPharmacologyInteractions, ChembIInteractions, DrugBank	25883042
Zonisamide	SCN3B	Inhibitor	TdgClinicalTrial, DrugBank	19557119, 20001433, 19948168, 15511691, 20025128, 14704463, 18433351
Botulinum toxin type B	VAMP2	Inhibitor, binder	TdgClinicalTrial, ChembIInteractions, TEND, DrugBank	14573702, 11752352
Bosutinib	CAMK2G	Inhibitor	GuideToPharmacologyInteractions, DrugBank	23493838
Dasatinib	PDGFRB	Inhibitor, antagonist	TdgClinicalTrial, ChembIInteractions, TEND, DrugBank, MyCancerGenomeClinicalTrial	20072833, 16497876, 16436588
Becaplermin	PDGFRB	Agonist	TdgClinicalTrial, ChembIInteractions, TEND, DrugBank	18686746
Sunitinib	PDGFRB	Inhibitor	TALC, MyCancerGenome, TdgClinicalTrial, GuideToPharmacologyInteractions, TEND, DrugBank	16425993, 12538485, 14753710, 12748309, 15557593
Sorafenib	PDGFRB	Inhibitor, antagonist	TEND, DrugBank TALC, MyCancerGenome, TdgClinicalTrial, ClarityFoundationClinicalTrial,	16425993, 17545544, 17619763
Pazopanib	PDGFRB	Inhibitor	TEND, DrugBank, MyCancerGenomeClinicalTrial TALC, MyCancerGenome, GuideToPharmacologyInteractions, DrugBank, MyCancerGenomeClinicalTrial	17288876
Imatinib	PDGFRB	Inhibitor	MyCancerGenome, TdgClinicalTrial, OncoKB, CGI, CIVIC, TEND, FDA	15116603, 12676775, 23835704, 22897847, 24687085, 21128251, 12181402, 15746584, 15503291, 19620561, 18950453, 24963404, 16960151, 15681532, 14504092, 20439456
Ketoconazole	AR	Binder	DrugBank	1526623

Table SII. Continued.

Drug	Gene	Interaction type	Source	PMID
Methyltestosterone	AR	Agonist	TdgClinicalTrial, GuideToPharmacologyInteractions, ChembIInteractions, DrugBank	17086931, 17084172, 17128417, 17322500, 17202804, 11752352
Danazol	AR	Agonist	ChembIInteractions, DrugBank	9593936, 2404115, 2486535, 10882672, 18061638
Drospirenone	AR	Antagonist	TdgClinicalTrial, DrugBank	11024226
Nandrolone phenpropionate	AR	Agonist	ChembIInteractions, DrugBank	12760377, 17405825, 14761877, 11752352, 14619588, 14663936
Prasterone	AR	Agonist	TdgClinicalTrial, DrugBank	15994348
Nilutamide	AR	Antagonist	TdgClinicalTrial, GuideToPharmacologyInteractions, ChembIInteractions, CIViC, TEND, DrugBank, TTD	12497018, 26000489, 3320565, 16986000, 3071951, 20541672, 11752352, 12497048, 12496872, 6374639
Flutamide	AR	Antagonist	TdgClinicalTrial, GuideToPharmacologyInteractions, ChembIInteractions, CGI, CIViC, TEND, DrugBank, TTD	11162924, 26000489, 10822172, 10500149, 10752671, 12231070, 11752352, 10879806
Levonogestrel	AR	Agonist	DrugBank	14672731, 19836445, 3139361, 19833195
Testosterone propionate	AR	Agonist	GuideToPharmacologyInteractions, ChembIInteractions, DrugBank	17086931, 17084172, 17128417, 17322500, 17202804, 12604714
Oxymetholone	AR	Activator, agonist	ChembIInteractions, DrugBank	16633980
Enzalutamide	AR	Antagonist, inhibitor	TdgClinicalTrial, GuideToPharmacologyInteractions, ChembIInteractions, CGI, CIViC, DrugBank, CancerCommons	23779130, 25184630
Nandrolone decanoate	AR	Agonist	ChembIInteractions, DrugBank	18809391
Bicalutamide	AR	Antagonist	TdgClinicalTrial, GuideToPharmacologyInteractions, ChembIInteractions, CGI, CIViC, TEND, DrugBank, TTD	12517791, 26000489, 10754148, 10500149, 11752352, 10076535, 11931851
Cyproterone acetate	AR	Antagonist	GuideToPharmacologyInteractions, CIViC	26000489
Spirolactone	AR	Antagonist	DrugBank	18819053
Fluoxymesterone	AR	Agonist	TdgClinicalTrial, GuideToPharmacologyInteractions, ChembIInteractions, TEND, DrugBank, TTD	8119180, 6439037, 2521824, 17023534, 11752352, 10077001
Oxandrolone	AR	Agonist	TdgClinicalTrial, ChembIInteractions, TEND, DrugBank, TTD	15219414, 17364004, 11752352, 20230007, 11392377
Norgestrel	AR	Agonist	DrugBank	3139361
Amodiaquine	HNMT	Inhibitor	DrugBank	6789797, 1203620, 17222819, 11752352
Enalapril maleate	ACE	Inhibitor	ChembIInteractions, NCI	3038326
Spirapril	ACE	Inhibitor	TdgClinicalTrial, GuideToPharmacologyInteractions, TEND, DrugBank	11929321, 16126915, 12613273, 11752352, 20524801

Table SII. Continued.

Drug	Gene	Interaction type	Source	PMID
Lisinopril	ACE	Inhibitor	PharmGKB, TdgClinicalTrial, GuideToPharmacologyInteractions, TEND, DrugBank	11030016, 11929321, 17618628, 9506845, 11752352
Cilazapril	ACE	Inhibitor	TdgClinicalTrial, GuideToPharmacologyInteractions, TEND, DrugBank	10398211, 10205231, 1382157, 1382161, 11752352, 10446934, 18423812
Ramipril	ACE	Inhibitor	TdgClinicalTrial, GuideToPharmacologyInteractions, ChEMBLInteractions, TEND, DrugBank	11030016, 11929321, 16398929, 11752352
Rescinnamine	ACE	Inhibitor	TdgClinicalTrial, TEND, DrugBank	16431399, 11752352, 17139284, 17016423
Trandolapril	ACE	Inhibitor	TdgClinicalTrial, GuideToPharmacologyInteractions, ChEMBLInteractions, TEND, DrugBank	11030016, 11929321, 11752352
Captopril	ACE	Inhibitor	PharmGKB, TdgClinicalTrial, GuideToPharmacologyInteractions, ChEMBLInteractions, NCI, TEND, DrugBank	2839262, 16889963, 2442780, 3937925, 11030016, 11929321, 3320343, 17618628, 3325392, 3038284, 15236580, 20014331, 7042175, 6275810, 11752352, 12424228, 12489813, 2875891, 9863143, 8864563
Liraglutide	GLP1R	Agonist	TdgClinicalTrial, GuideToPharmacologyInteractions, ChEMBLInteractions, TEND, DrugBank, TTD	14678021, 18333889
Albiglutide	GLP1R	Agonist	TdgClinicalTrial, ChEMBLInteractions, DrugBank	25136065
Exenatide	GLP1R	Binder, agonist	TdgClinicalTrial, ChEMBLInteractions, TEND, DrugBank, TTD	16627399, 16722815, 17292977, 15700891, 20649595, 16341288, 11752352, 15495988, 17353295, 16534527, 15331551, 17379930
Glucagon	GLP1R	Agonist	GuideToPharmacologyInteractions, DrugBank	17475961, 17498508, 12529935, 17534934
Dulaglutide	GLP1R	Agonist	ChEMBLInteractions, DrugBank	25367716
Flucytosine	DNMT1	other	DrugBank	17897676, 17139284, 17016423, 8441637
Decitabine	DNMT1	Inhibitor	TdgClinicalTrial, ChEMBLInteractions, CIViC, TEND, DrugBank	16015501, 20072836, 11688997, 25968887, 11259619, 18398832, 11352938, 11752352, 11069027, 12907443, 17023173, 18425818
Azacitidine	DNMT1	Inhibitor	TdgClinicalTrial, ChEMBLInteractions, NCI, TEND, DrugBank	2443243, 12011120, 11700387, 17612710, 20126405, 6173384, 14585280, 15793220, 11752352, 18627335, 19589026, 16341239

Table SII. Continued.

Drug	Gene	Interaction type	Source	PMID
Sorafenib	KDR	Inhibitor, antagonist	TALC, MyCancerGenome, TdgClinicalTrial, ClarityFoundationClinicalTrial, CKB, GuideToPharmacologyInteractions, CIViC, TEND, DrugBank, MyCancerGenomeClinicalTrial	16824050, 16418310, 16503817, 16757355, 16446323, 19723655
Cabozantinib	KDR	Inhibitor, antagonist	TALC, MyCancerGenome, TdgClinicalTrial, ClarityFoundationClinicalTrial, GuideToPharmacologyInteractions, DrugBank, TTD	21606412, 21926191
Pazopanib	KDR	Inhibitor	TALC, MyCancerGenome, TdgClinicalTrial, GuideToPharmacologyInteractions, DrugBank, MyCancerGenomeClinicalTrial, TTD	17288876
Axitinib	KDR	Inhibitor	TALC, PharmGKB, MyCancerGenome, TdgClinicalTrial, GuideToPharmacologyInteractions, ChemblInteractions, DrugBank, CancerCommons, MyCancerGenomeClinicalTrial, TTD	18541897
Ramucirumab	KDR	Inhibitor, antagonist, antibody	TALC, MyCancerGenome, TdgClinicalTrial, CKB, GuideToPharmacologyInteractions, ChemblInteractions, DrugBank	20048182, 2182794
Sunitinib	KDR	Inhibitor	GuideToPharmacologyInteractions, ChemblInteractions, DrugBank, TALC, MyCancerGenome, TdgClinicalTrial, CKB, MyCancerGenome, TdgClinicalTrial, CKB, GuideToPharmacologyInteractions, CIViC, TEND, DrugBank, MyCancerGenomeClinicalTrial, TTD	27149458, 20142593, 16418310, 16533791, 12538485, 14753710, 11752352, 28011623, 19723655, 12873999
Ponatinib	KDR	Inhibitor	MyCancerGenome, DrugBank	19878872
Vandetanib	KDR	Inhibitor	TALC, MyCancerGenome, TdgClinicalTrial, ClarityFoundationClinicalTrial, CKB, GuideToPharmacologyInteractions, ChemblInteractions, MyCancerGenomeClinicalTrial, TTD	26578684
Nintedanib	KDR	Inhibitor, inhibitor	TALC, MyCancerGenome, TdgClinicalTrial, ClarityFoundationClinicalTrial, GuideToPharmacologyInteractions, DrugBank	18559524
Regorafenib	KDR	Inhibitor	TALC, MyCancerGenome, TdgClinicalTrial, CKB, GuideToPharmacologyInteractions, ChemblInteractions, DrugBank, MyCancerGenomeClinicalTrial	27004155
Tirofiban	ITGA2B	Antagonist	PharmGKB, TdgClinicalTrial, TEND, DrugBank	11929319, 11565896, 12057986, 20210689, 11342206, 11076818
Abciximab	ITGA2B	Inhibitor, antagonist	PharmGKB, TdgClinicalTrial, ChemblInteractions, TEND, DrugBank	18510478, 12749745, 19499855
Dalfampridine	KCNA2	Antagonist, blocker	ChemblInteractions, DrugBank	16472864
Paclitaxel	TUBB1	Binder, inhibitor	TdgClinicalTrial, ChemblInteractions, TEND, DrugBank, TTD	17314054, 19575780, 17139284, 17016423, 1350385
Eribulin mesylate	TUBB1	Inhibitor	ChemblInteractions, DrugBank	16940412
Colchicine	TUBB1	Inhibitor	ChemblInteractions, DrugBank	20814887, 20586571, 17139284, 17016423, 19527023, 15720245
Vindesine	TUBB1	Binder, inhibitor	TdgClinicalTrial, TEND, DrugBank, TTD	17878523, 17465195, 10920282, 17139284, 17016423
Vinblastine	TUBG1	Adduct	DrugBank	9664292, 1818332, 18220533, 15579115, 14619954

Table SII. Continued.

Drug	Gene	Interaction type	Source	PMID
Amoxapine	SLC6A4	Inhibitor	TdgClinicalTrial, GuideToPharmacologyInteractions, TEND, DrugBank	9537821, 7984281
Cocaine	SLC6A4	Inhibitor	TdgClinicalTrial, TEND, DrugBank	8302852, 15351386, 12057823, 9537821, 10366604
Chlorpheniramine polistirex	SLC6A4	Inhibitor	DrugBank	9537821
Mirtazapine	SLC6A4	Binder	DrugBank	9537821, 15771415
Amphetamine	SLC6A4	Binder	DrugBank	17209801
Vortioxetine	SLC6A4	Inhibitor; inhibitor	TdgClinicalTrial, GuideToPharmacologyInteractions, DrugBank	21486038
Butriptyline	SLC6A4	Inhibitor; antagonist	DrugBank	3816971, 6086881, 9537821
Mianserin	SLC6A4	Inhibitor	DrugBank	9537821
Mazindol	SLC6A4	Inhibitor	DrugBank	9537821
Fluoxetine	SLC6A4	Inhibitor	PharmGKB, TdgClinicalTrial, GuideToPharmacologyInteractions,	17289086, 11487610, 9537821, 11752352, 17215106, 17356573, 17335951, 17486443
Tapentadol	SLC6A4	Inhibitor	NCI, TEND, DrugBank	22698264
Tositumomab	MS4A1	Inhibitor; antibody	DrugBank	22698264
			TdgClinicalTrial, GuideToPharmacologyInteractions, ChEMBLInteractions, TEND, DrugBank, TTD	11418316, 14748653, 11879282, 12899647, 11752352, 15023434, 13129395
Obinutuzumab	MS4A1	Inhibitor; antibody	TdgClinicalTrial, GuideToPharmacologyInteractions, ChEMBLInteractions, DrugBank, TTD, FDA	19513948
Rituximab	MS4A1	Inhibitor; antibody	MyCancerGenome, TdgClinicalTrial, GuideToPharmacologyInteractions, ChEMBLInteractions, TEND, DrugBank, TTD, FDA	20350667, 11752352, 20350663
Ibritumomab tiuxetan	MS4A1	antibody	MyCancerGenome, TdgClinicalTrial, GuideToPharmacologyInteractions, DrugBank	11418316, 15045033, 11879282, 20113680, 11752352, 12011122, 10541376
Ofatumumab	MS4A1	Inhibitor; antibody	MyCancerGenome, TdgClinicalTrial, GuideToPharmacologyInteractions, ChEMBLInteractions, DrugBank, TTD	19427037, 18388516, 17768100
Dofetilide	KCNK2	Inhibitor	TdgClinicalTrial, TEND, DrugBank	17187453, 17139284, 17016423
Dronedarone	KCNK2	Inhibitor	DrugBank	22790794
Vortioxetine	ADRB1	Ligand	DrugBank	21486038
Oxprenolol	ADRB1	Antagonist	TdgClinicalTrial, TEND, DrugBank, TTD	6202960, 6124492, 2871880, 11752352, 17139284, 17016423
Norepinephrine	ADRB1	Agonist	PharmGKB, DrugBank	9464897, 18064417, 11752352, 19110970
Cabergoline	ADRB1	Binder	DrugBank	12388666
Penbutolol	ADRB1	Antagonist, partial agonist	TdgClinicalTrial, TEND, DrugBank	11738481, 6755764, 11224195, 2189902

Table SII. Continued.

Drug	Gene	Interaction type	Source	PMID
Isoetharine	ADRB1	Agonist	TdgClinicalTrial, TEND, DrugBank	17157779, 15917856, 17628611, 16973691, 17329986
Levobunolol	ADRB1	Antagonist	TdgClinicalTrial, TEND, DrugBank	11572462, 10864881, 1351412, 2891463, 7928182, 2892662
Clenbuterol	ADRB1	Agonist	DrugBank	20590599
Amphetamine	ADRB1	Agonist	DrugBank	6245760, 4399738
Practolol	ADRB1	Antagonist	TdgClinicalTrial, TEND, DrugBank, TTD	2871880, 6524278, 30388, 2857116, 11752352
Nebivolol	ADRB1	Antagonist	TdgClinicalTrial, TEND, DrugBank, TTD	11752352, 17661735, 16961165
Nadolol	ADRB1	Antagonist	TdgClinicalTrial, ChemblInteractions, TEND, DrugBank	10606440, 1354084, 7912539, 7981009, 10433496, 11752352
Bethanidine	ADRB1	Antagonist	DrugBank	6114720, 6812406, 11752352
Propranolol	ADRB1	Antagonist	TdgClinicalTrial, TEND, DrugBank	15236843, 14757703, 17628611, 17572694, 11752352, 16177222
Carvedilol	ADRB1	Antagonist	TdgClinicalTrial, ChemblInteractions, TEND, DrugBank	2575762, 1712335, 7908256, 2577144
Atenolol	ADRB1	Antagonist	TdgClinicalTrial, ChemblInteractions, TEND, DrugBank, TTD	9300315, 17628611, 11752352, 12065078, 10913016
Pirbuterol	ADRB1	Agonist	DrugBank	2901958, 6143816
Mirtazapine	ADRB1	Binder	DrugBank	10762339
Pindolol	ADRB1	Partial agonist	TdgClinicalTrial, ChemblInteractions, TEND, DrugBank	14608456, 2907348, 2148726, 8884690, 11752352, 1687398
Arbutamine	ADRB1	Agonist	TdgClinicalTrial, TEND, DrugBank	8723169, 17139284, 17016423
Celiprolol	ADRB1	Antagonist	DrugBank	18636069, 17384462, 17141277
Mephentermine	ADRB1	Agonist	DrugBank	21182601
Droxidopa	ADRB1	Agonist	ChemblInteractions, DrugBank	9464897, 18064417, 19110970
EZETIMIBE	ANPEP	Other	DrugBank	15494415
Icatibant	ANPEP	Inhibitor	DrugBank	17026984
Ceruletide	CCKAR	Inducer	TdgClinicalTrial, TEND, DrugBank	8182534, 1620654, 3440035, 2087492, 2587420, 1356589