

Supplemental Table 2

Discontinuation rates by genotype for all analyzed subjects and variants. AIMSS: Aromatase inhibitor associated musculoskeletal syndrome; No: number; SNP: single nucleotide polymorphism; Vt: variant; Wt: wildtype

Gene	SNP	Discontinued due to any toxicity (No. % of total with genotype)				Discontinued due to AIMSS (No. % of total with genotype)							
		Wt/Wt	Wt/Vt	Vt/Vt		Wt/Wt	Wt/Vt	Vt/Vt					
ARVCF	rs165815	108	38.8%	35	27.8%	7	38.9%	83	29.9%	27	21.4%	5	27.8%
COMT	rs165599	72	40.4%	63	32.8%	15	28.3%	56	31.5%	47	24.5%	12	22.6%
COMT	rs165774	67	30.9%	62	38.5%	20	44.4%	50	23.0%	53	32.9%	12	26.7%
COMT	rs2097903	39	34.5%	86	39.8%	25	27.2%	31	27.4%	66	30.6%	19	20.7%
COMT	rs4633	33	28.2%	78	37.7%	39	40.2%	24	20.5%	64	30.9%	27	27.8%
COMT	rs4646310	103	36.8%	36	32.4%	4	28.6%	82	29.3%	26	23.4%	2	14.3%
COMT	rs4680	37	31.4%	67	34.9%	37	38.9%	27	22.9%	54	28.1%	26	27.4%
COMT	rs4818	50	35.0%	61	33.7%	19	31.1%	38	26.6%	46	25.4%	13	21.3%
COMT	rs6269	58	36.7%	71	35.9%	22	30.1%	45	28.5%	56	28.3%	15	20.5%
COMT	rs933271	80	39.6%	63	35.0%	8	20.5%	60	29.7%	50	27.8%	6	15.4%
CYP19A1	rs10046	40	35.1%	75	34.2%	35	38.0%	29	25.4%	61	27.9%	25	27.2%
CYP19A1	rs1008805	54	37.8%	74	35.9%	15	27.3%	42	29.4%	57	27.7%	9	16.4%
CYP19A1	rs10459592	50	38.5%	68	34.2%	33	34.4%	34	26.2%	57	28.6%	25	26.0%
CYP19A1	rs1062033	49	33.1%	71	35.1%	27	39.1%	37	25.0%	57	28.2%	18	26.1%
CYP19A1	rs11575899	67	34.9%	65	36.1%	18	32.7%	50	26.0%	54	30.0%	11	20.0%
CYP19A1	rs2008691	102	36.8%	41	30.6%	8	50.0%	75	27.1%	34	25.4%	7	43.8%
CYP19A1	rs2289105	41	36.3%	72	33.6%	35	37.6%	30	26.5%	58	27.1%	25	26.9%
CYP19A1	rs2414096	35	33.7%	62	34.3%	27	36.5%	24	23.1%	50	27.6%	17	23.0%
CYP19A1	rs28566535	122	35.0%	22	31.9%	6	66.7%	89	25.5%	20	29.0%	6	66.7%
CYP19A1	rs28757184#	144	35.9%	5	23.8%	0	0.0%	109	27.2%	5	23.8%	0	0.0%
CYP19A1	rs3759811	38	33.6%	72	34.6%	26	37.1%	27	23.9%	60	28.8%	16	22.9%
CYP19A1	rs4646	82	38.9%	60	33.0%	7	24.1%	67	31.8%	41	22.5%	6	20.7%
CYP19A1	rs4774585	74	32.3%	55	39.9%	7	41.2%	58	25.3%	39	28.3%	5	29.4%
CYP19A1	rs4775936	46	33.1%	76	35.5%	29	39.2%	35	25.2%	62	29.0%	19	25.7%
CYP19A1	rs6493497	108	37.1%	26	28.0%	2	50.0%	79	27.1%	21	22.6%	2	50.0%
CYP19A1	rs700518	42	34.4%	78	35.0%	30	37.5%	31	25.4%	64	28.7%	20	25.0%
CYP19A1	rs7181886	119	35.5%	21	36.2%	3	50.0%	88	26.3%	18	31.0%	3	50.0%
CYP19A1	rs727479	70	37.0%	62	35.0%	18	32.7%	52	27.5%	52	29.4%	11	20.0%
CYP19A1	rs730154	83	34.7%	37	34.6%	5	29.4%	59	24.7%	32	29.9%	5	29.4%
CYP19A1	rs749292	43	33.1%	76	35.0%	28	38.4%	32	24.6%	60	27.6%	21	28.8%
CYP19A1	rs752760	38	35.5%	66	34.4%	37	39.8%	31	29.0%	44	22.9%	31	33.3%
CYP19A1	rs936308	99	36.1%	42	31.8%	8	40.0%	72	26.3%	35	26.5%	7	35.0%
EP300	rs20551	78	34.5%	62	37.1%	6	20.7%	59	26.1%	48	28.7%	6	20.7%
ESR1	rs1062577	130	36.2%	17	29.3%	0	0.0%	100	27.9%	13	22.4%	0	0.0%
ESR1	rs11963577#	149	34.8%	1	100.0%	0	0.0%	115	26.9%	1	100.0%	0	0.0%
ESR1	rs1709181	46	41.8%	59	31.9%	24	32.4%	36	32.7%	40	21.6%	21	28.4%
ESR1	rs1709182	63	40.4%	55	31.6%	18	31.6%	49	31.4%	39	22.4%	15	26.3%
ESR1	rs1884049	77	32.6%	65	39.2%	5	27.8%	57	24.2%	51	30.7%	5	27.8%
ESR1	rs2077647	41	36.3%	66	33.8%	40	37.4%	31	27.4%	51	26.2%	32	29.9%
ESR1	rs2228480	104	39.1%	40	30.1%	4	23.5%	81	30.5%	29	21.8%	4	23.5%
ESR1	rs2234693	37	35.9%	65	33.7%	34	34.7%	28	27.2%	50	25.9%	27	27.6%
ESR1	rs2347868	81	32.4%	56	37.8%	9	52.9%	60	24.0%	43	29.1%	9	52.9%
ESR1	rs2347869	47	32.6%	71	35.0%	30	40.0%	34	23.6%	55	27.1%	24	32.0%
ESR1	rs2747648#	142	36.0%	5	20.8%	1	50.0%	110	27.9%	3	12.5%	0	0.0%
ESR1	rs2813543	91	36.0%	50	34.2%	11	34.4%	74	29.2%	36	24.7%	7	21.9%
ESR1	rs2982734	59	35.5%	68	35.1%	18	31.0%	39	23.5%	57	29.4%	15	25.9%
ESR1	rs3003917	76	33.3%	60	41.1%	2	16.7%	56	24.6%	46	31.5%	2	16.7%
ESR1	rs3020368	120	35.0%	24	34.8%	1	50.0%	88	25.7%	21	30.4%	1	50.0%
ESR1	rs3020371	63	36.6%	67	35.1%	18	31.6%	43	25.0%	56	29.3%	15	26.3%
ESR1	rs3020376*	85	37.3%	36	34.3%	19	35.8%	62	27.2%	29	27.6%	16	30.2%
ESR1	rs3020377	53	32.1%	75	37.9%	21	36.2%	38	23.0%	58	29.3%	19	32.8%
ESR1	rs3020410	107	36.3%	41	32.5%	4	80.0%	85	28.8%	29	23.0%	3	60.0%
ESR1	rs3778610*	123	34.3%	9	32.1%	4	40.0%	91	25.3%	7	25.0%	3	30.0%
ESR1	rs3798565*	94	35.5%	37	35.6%	9	22.0%	68	25.7%	32	30.8%	8	19.5%
ESR1	rs3798577	40	31.5%	78	37.5%	33	36.7%	29	22.8%	58	27.9%	29	32.2%
ESR1	rs3798758#	140	35.2%	9	37.5%	1	100.0%	107	26.9%	7	29.2%	1	100.0%
ESR1	rs3853250	40	37.0%	71	35.1%	34	32.1%	31	28.7%	53	26.2%	27	25.5%
ESR1	rs4870056	37	36.6%	71	36.2%	31	32.6%	29	28.7%	52	26.5%	25	26.3%
ESR1	rs4870061	83	32.0%	55	39.9%	8	38.1%	62	23.9%	42	30.4%	8	38.1%
ESR1	rs4986934#	135	34.5%	13	41.9%	0	0.0%	104	26.6%	10	32.3%	0	0.0%
ESR1	rs6909026#	132	33.5%	8	44.4%	1	100.0%	99	25.1%	7	38.9%	1	100.0%
ESR1	rs6920483#	134	33.9%	7	38.9%	0	0.0%	102	25.8%	5	27.8%	0	0.0%
ESR1	rs6930355	109	36.5%	35	34.0%	3	25.0%	79	26.4%	31	30.1%	3	25.0%
ESR1	rs750686	61	37.2%	66	34.6%	19	33.9%	42	25.6%	54	28.3%	16	28.6%
ESR1	rs867239#	142	34.9%	9	37.5%	0	0.0%	109	26.8%	7	29.2%	0	0.0%
ESR1	rs926848#	132	34.9%	11	35.5%	0	0.0%	101	26.7%	9	29.0%	0	0.0%
ESR1	rs9322331	67	34.7%	63	34.2%	21	39.6%	52	26.9%	49	26.6%	16	30.2%
ESR1	rs9322335	75	33.5%	63	35.2%	13	54.2%	56	25.0%	48	26.8%	12	50.0%
ESR1	rs9322336	82	34.0%	48	35.0%	11	61.1%	63	26.1%	34	24.8%	10	55.6%
ESR1	rs9322338*	131	36.0%	8	26.7%	5	45.5%	100	27.5%	5	16.7%	5	45.5%
ESR1	rs9322348#	148	34.7%	0	0.0%	4	66.7%	114	26.8%	0	0.0%	3	50.0%
ESR1	rs9340799	52	33.3%	59	32.8%	24	43.6%	39	25.0%	44	24.4%	19	34.5%
ESR1	rs9340817#	135	36.2%	5	27.8%	1	25.0%	103	27.6%	5	27.8%	0	0.0%
ESR1	rs9340835	67	42.1%	58	30.7%	12	27.9%	55	34.6%	39	20.6%	11	25.6%
ESR1	rs9340941*#	126	35.4%	0	0.0%	13	34.2%	99	27.8%	0	0.0%	9	23.7%
ESR1	rs9340958	126	36.0%	17	31.5%	1	50.0%	96	27.4%	14	25.9%	1	50.0%
ESR1	rs9341004	110	34.0%	34	43.0%	1	20.0%	80	24.7%	30	38.0%	1	20.0%
ESR1	rs9341066	118	34.6%	19	35.2%	1	100.0%	88	25.8%	15	27.8%	1	100.0%
ESR1	rs9341070#	148	35.0%	1	25.0%	1	100.0%	114	27.0%	1	25.0%	0	0.0%
ESR1	rs9341072#	137	33.9%	0	0.0%	1	100.0%	104	25.7%	0	0.0%	0	0.0%
ESR1	rs9341077#	143	36.5%	6	17.1%	0	0.0%	111	28.3%	4	11.4%	0	0.0%
ESR1	rs9479188	103	34.7%	41	36.6%	5	29.4%	74	24.9%	36	32.1%	4	23.5%

ESR2	rs10140457#	144	35.6%	5	22.7%	1	100.0%	110	27.2%	4	18.2%	1	100.0%
ESR2	rs1256031	44	34.9%	65	34.2%	30	36.1%	33	26.2%	46	24.2%	26	31.3%
ESR2	rs1256049#	139	35.8%	10	31.3%	0	0.0%	105	27.1%	9	28.1%	0	0.0%
ESR2	rs1256059	48	33.8%	68	36.2%	28	37.3%	36	25.4%	51	27.1%	23	30.7%
ESR2	rs1256062	115	36.7%	30	29.1%	5	41.7%	89	28.4%	22	21.4%	4	33.3%
ESR2	rs1256064*	113	36.1%	26	29.9%	8	36.4%	87	27.8%	19	21.8%	7	31.8%
ESR2	rs17766755	61	34.5%	63	34.8%	17	35.4%	51	28.8%	44	24.3%	13	27.1%
ESR2	rs1952585*	113	34.9%	27	35.5%	6	42.9%	87	26.9%	20	26.3%	5	35.7%
ESR2	rs2274705	99	35.1%	27	39.1%	4	50.0%	76	27.0%	20	29.0%	3	37.5%
ESR2	rs3020450	67	34.9%	68	35.1%	14	35.9%	55	28.6%	51	26.3%	9	23.1%
ESR2	rs4986938	62	34.3%	68	37.0%	19	32.2%	52	28.7%	48	26.1%	15	25.4%
ESR2	rs8003490	119	34.8%	23	36.5%	0	0.0%	93	27.2%	15	23.8%	0	0.0%
ESR2	rs8006145	79	33.9%	60	36.6%	10	31.3%	63	27.0%	44	26.8%	8	25.0%
ESR2	rs867443	81	33.9%	58	37.2%	9	31.0%	65	27.2%	43	27.6%	7	24.1%
ESR2	rs944045	118	34.5%	22	36.7%	4	44.4%	92	26.9%	16	26.7%	3	33.3%
ESR2	rs944460#	129	36.0%	7	22.6%	0	0.0%	97	27.1%	6	19.4%	0	0.0%
EZH2	rs2302427	127	34.8%	21	36.2%	0	0.0%	98	26.8%	16	27.6%	0	0.0%
HCRT	rs41513044#	147	35.7%	3	30.0%	0	0.0%	113	27.4%	3	30.0%	0	0.0%
HCRT	rs9902709	99	34.5%	42	36.2%	4	40.0%	73	25.4%	33	28.4%	4	40.0%
HCRTR1	rs11806980	138	36.0%	12	30.8%	0	0.0%	103	26.9%	12	30.8%	0	0.0%
HCRTR1	rs2176807	47	37.6%	68	32.9%	34	37.0%	33	26.4%	54	26.1%	27	29.3%
HCRTR1	rs2271933	56	36.1%	67	33.8%	24	36.4%	40	25.8%	52	26.3%	20	30.3%
HCRTR2	rs2653349	102	35.7%	42	34.4%	5	35.7%	79	27.6%	31	25.4%	4	28.6%
HTR1A	rs1800046#	151	35.4%	0	0.0%	0	0.0%	116	27.2%	0	0.0%	0	0.0%
HTR1A	rs6295	34	30.9%	79	36.6%	31	35.6%	25	22.7%	67	31.0%	19	21.8%
HTR2A	rs1328685	115	34.4%	31	38.8%	0	0.0%	93	27.8%	19	23.8%	0	0.0%
HTR2A	rs1805055*#	136	38.4%	2	7.7%	12	27.9%	106	29.9%	1	3.8%	9	20.9%
HTR2A	rs2274639	112	35.2%	33	34.4%	3	33.3%	83	26.1%	27	28.1%	3	33.3%
HTR2A	rs2296972	74	40.7%	66	37.7%	10	15.6%	55	30.2%	52	29.7%	8	12.5%
HTR2A	rs3742278	114	35.2%	30	35.7%	5	33.3%	90	27.8%	19	22.6%	5	33.3%
HTR2A	rs594242	104	37.0%	38	31.1%	6	35.3%	82	29.2%	27	22.1%	5	29.4%
HTR2A	rs6306	125	34.9%	21	38.2%	0	0.0%	95	26.5%	17	30.9%	0	0.0%
HTR2A	rs6308#	147	35.3%	1	33.3%	0	0.0%	112	26.9%	1	33.3%	0	0.0%
HTR2A	rs6311	49	37.1%	73	35.3%	26	34.2%	35	26.5%	59	28.5%	20	26.3%
HTR2A	rs6313	46	35.7%	76	35.2%	26	35.1%	33	25.6%	61	28.2%	20	27.0%
HTR2A	rs731779	96	34.0%	45	35.2%	6	75.0%	69	24.5%	38	29.7%	5	62.5%
HTR2A	rs7997012	72	43.1%	55	29.3%	21	33.9%	57	34.1%	42	22.3%	15	24.2%
HTR2A	rs9567746	97	34.0%	45	35.4%	6	75.0%	71	24.9%	38	29.9%	5	62.5%
NCOA1	rs11125744	114	36.5%	27	30.7%	2	16.7%	83	26.6%	25	28.4%	2	16.7%
NCOA1	rs17737058	81	33.9%	49	32.5%	13	59.1%	68	28.5%	32	21.2%	10	45.5%
NCOA1	rs1804645#	137	35.2%	12	33.3%	0	0.0%	104	26.7%	10	27.8%	0	0.0%
NCOA1	rs2033861	36	32.7%	59	35.5%	28	31.5%	31	28.2%	41	24.7%	20	22.5%
NCOA1	rs2083389	69	32.4%	51	33.3%	13	54.2%	57	26.8%	35	22.9%	9	37.5%
NCOA1	rs3731628	129	34.8%	21	37.5%	0	0.0%	98	26.4%	17	30.4%	0	0.0%
NCOA1	rs920418	49	37.4%	71	36.4%	27	29.0%	38	29.0%	51	26.2%	24	25.8%
NCOA2	rs1380896	83	34.0%	34	31.8%	9	40.9%	59	24.2%	27	25.2%	8	36.4%
NCOA2	rs2228591#	134	34.8%	14	36.8%	0	0.0%	99	25.7%	14	36.8%	0	0.0%
NCOA2	rs2272670	80	34.8%	46	31.9%	14	46.7%	59	25.7%	37	25.7%	12	40.0%
NCOA2	rs3088092	125	34.5%	14	34.1%	1	50.0%	96	26.5%	11	26.8%	1	50.0%
NCOA2	rs4738079	114	35.2%	21	31.3%	0	0.0%	86	26.5%	15	22.4%	0	0.0%
NCOA3	rs2076546	124	36.7%	25	31.3%	0	0.0%	94	27.8%	20	25.0%	0	0.0%
NCOA3	rs2230782	124	34.8%	17	30.4%	2	100.0%	95	26.7%	14	25.0%	2	100.0%
NCOA3	rs365602	98	34.4%	19	27.5%	2	25.0%	78	27.4%	14	20.3%	1	12.5%
NCOA3	rs396221	42	36.2%	72	32.3%	29	39.2%	31	26.7%	54	24.2%	23	31.1%
NCOA3	rs6094752	131	35.5%	14	30.4%	1	50.0%	100	27.1%	11	23.9%	1	50.0%
NCOR1	rs1065822	44	34.9%	76	39.0%	27	26.2%	34	27.0%	59	30.3%	20	19.4%
NCOR1	rs1073093#	139	35.5%	8	28.6%	0	0.0%	109	27.8%	5	17.9%	0	0.0%
NCOR1	rs61753150#	139	35.5%	2	14.3%	0	0.0%	106	27.0%	1	7.1%	0	0.0%
NCOR2	rs1812730	48	37.5%	73	34.0%	25	32.5%	34	26.6%	60	27.9%	19	24.7%
NCOR2	rs2229840	103	35.0%	40	33.3%	5	62.5%	81	27.6%	30	25.0%	3	37.5%
NCOR2	rs7978237	104	33.5%	32	38.1%	5	41.7%	80	25.8%	24	28.6%	3	25.0%
NCOR2	rs837935	59	32.8%	59	34.3%	18	33.3%	49	27.2%	43	25.0%	14	25.9%
NRIP1	rs2229742	118	35.1%	27	34.6%	1	16.7%	89	26.5%	21	26.9%	1	16.7%
PELP1	rs9436	101	37.0%	36	29.0%	12	41.4%	77	28.2%	29	23.4%	8	27.6%
PGR	rs1042838	108	34.2%	39	39.8%	2	20.0%	83	26.3%	30	30.6%	2	20.0%
PGR	rs11571171	67	34.5%	62	33.5%	17	47.2%	53	27.3%	48	25.9%	13	36.1%
PGR	rs500760	77	33.8%	55	37.9%	10	32.3%	59	25.9%	40	27.6%	9	29.0%
PGR	rs506487	72	37.1%	58	32.6%	16	31.4%	59	30.4%	42	23.6%	11	21.6%
PGR	rs516693	110	35.9%	33	30.8%	3	60.0%	83	27.1%	26	24.3%	3	60.0%
PGR	rs518162	109	34.1%	29	42.0%	1	16.7%	78	24.4%	26	37.7%	1	16.7%
PGR	rs660149	63	29.9%	70	39.5%	12	40.0%	49	23.2%	52	29.4%	10	33.3%
PGR	rs7116336	121	35.9%	19	31.1%	1	14.3%	92	27.3%	14	23.0%	1	14.3%
SLC6A4	rs140700	125	34.8%	24	36.9%	1	50.0%	96	26.7%	18	27.7%	1	50.0%
SLC6A4	rs16965628	125	35.7%	22	31.4%	0	0.0%	96	27.4%	16	22.9%	0	0.0%
SLC6A4	rs25531#	137	34.8%	7	33.3%	0	0.0%	104	26.4%	7	33.3%	0	0.0%
SLC6A4	rs25532	98	35.8%	22	25.3%	5	71.4%	75	27.4%	17	19.5%	5	71.4%
TCL1A	rs11849538	122	38.6%	29	27.4%	0	0.0%	92	29.1%	24	22.6%	0	0.0%
TCL1A	rs2369049	116	39.5%	34	29.3%	2	9.5%	87	29.6%	28	24.1%	2	9.5%
TCL1A	rs7158782	110	38.7%	39	31.2%	3	13.6%	81	28.5%	33	26.4%	3	13.6%
TCL1A	rs7159713	110	38.1%	40	33.1%	2	9.5%	81	28.0%	34	28.1%	2	9.5%

* not in Hardy-Weinberg equilibrium

excluded from analysis (plus 8 additional SNPs not listed because MAF 0)

Gene	SNP	# repeats	Discontinued due to any toxicity (No, % of total with # repeats)				Discontinued due to AIMSS (No, % of total with # repeats)					
			None		Any		None		Any			
			%	No	%	No	%	No	%	No		
CYP19A1	rs60271534	TTTA repeats										
		7	38.8%	33	34.2%	117	27.1%	23	26.9%	92		
		8	34.5%	120	38.0%	30	25.9%	90	31.6%	25		
		10	35.3%	148	25.0%	2	27.0%	113	25.0%	2		
		11	35.6%	74	34.7%	76	26.9%	56	26.9%	59		
12	34.4%	138	46.2%	12	27.2%	109	23.1%	6				