Supplementary Table 3. ORs and 95% CIs of all SNPs among European American (EA) and African American (AA) women by ER status in WCHS.

Gene	SNP	Chr.	Genotype	European American								African American							
				ER Positive				ER Negative				ER Positive				ER Negative			
				Ca/Co	OR(95%CI)[a]	P[b]	P-trend	Ca/Co	OR(95%CI)[a]	P[b]	P-trend	Ca/Co	OR(95%CI)[a]	P[b]	P-trend	Ca/Co	OR(95%CI)[a]	P[b]	P-trend
COMT	rs4633	22	GG	89/165	1.00	0.86	0.82	25/165	1.00	0.35	0.15	32/76	1.00	0.84	0.95	6/76	1.00	0.07	0.15
			GA	187/304	1.10 (0.79-1.53)			38/304	0.77 (0.43-1.36)			137/313	1.13 (0.7-1.83)			68/313	2.87 (1.18-7.00)		
			AA	99/167	1.05 (0.72-1.53)			16/167	0.60 (0.30-1.21)			145/344	1.06 (0.66-1.7)			72/344	2.72 (1.12-6.62)		
			GA/AA[c]	286/471	1.08 (0.79-1.48)	0.63		54/471	0.71 (0.42-1.21)	0.21		282/657	1.09 (0.69-1.72)	0.71		140/657	2.79 (1.17-6.66)	0.02	
CYP17A1	rs10883782	10	AA	250/414	1.00	0.76	0.77	53/414	1.00	0.84	0.57	239/588	1.00	0.14	0.25	118/588	1.00	0.93	0.73
			AG	114/192	1.02 (0.76-1.38)			22/192	0.86 (0.49-1.5)			71/135	1.36 (0.97-1.9)			25/135	0.91 (0.56-1.48)		
			GG	12/26	0.77 (0.37-1.61)			3/26	0.81 (0.22-2.99)			3/10	0.58 (0.16-2.21)			2/10	0.96 (0.2-4.57)		
			AG/GG	126/218	0.99 (0.75-1.32)	0.96		25/218	0.85 (0.50-1.45)	0.56		74/145	1.29 (0.93-1.8)	0.13		27/145	0.91 (0.57-1.46)	0.70	
CYP17A1	rs12413409	10	GG	306/519	1.00	0.57	0.83	56/519	1.00	**0.04**	**0.01**	282/659	1.00	1.00	N/A	133/659	1.00	0.95	N/A
			GA	63/109	0.95 (0.66-1.36)			22/109	2.01 (1.15-3.54)			32/74	1.01 (0.64-1.60)			13/74	0.90 (0.48-1.71)		
			AA	6/6	1.89 (0.54-6.61)			1/6	2.55 (0.28-23.31)			0/1	N/A			0/1	N/A		
			GA/AA	69/115	0.99 (0.70-1.41)	0.96		23/115	2.03 (1.17-3.55)	**0.01**		32/75	1.00 (0.63-1.58)	1.00		13/75	0.89 (0.47-1.69)	0.73	
CYP17A1	rs2486758	10	AA	219/405	1.00	0.19	0.07	54/405	1.00	0.72	0.60	276/640	1.00	0.85	N/A	133/640	1.00	0.95	N/A
			AG	136/207	1.25 (0.94-1.67)			23/207	0.99 (0.57-1.7)			39/88	1.13 (0.74-1.73)			14/88	0.90 (0.48-1.69)		
			GG	22/24	1.50 (0.79-2.84)			2/24	0.53 (0.12-2.46)			0/8	N/A			0/8	N/A		
			AG/GG	158/231	1.28 (0.97-1.69)	0.08		25/231	0.93 (0.55-1.57)	0.78		39/96	1.03 (0.68-1.57)	0.88		14/96	0.8 (0.43-1.5)	0.49	
CYP17A1	rs6162	10	GG	143/207	1.00	0.23	0.09	22/207	1.00	0.45	0.48	113/306	1.00	0.09	0.45	55/306	1.00	0.46	0.40
			GA	172/311	0.82 (0.61-1.11)			43/311	1.45 (0.81-2.59)			159/320	1.43 (1.06-1.94)			70/320	1.29 (0.86-1.94)		
			AA	61/116	0.72 (0.48-1.08)			14/116	1.25 (0.59-2.64)			43/109	0.94 (0.63-1.51)			22/109	1.15 (0.66-2.03)		
			GA/AA	233/427	0.80 (0.60-1.06)	0.11		57/427	1.40 (0.80-2.43)	0.24		202/429	1.31 (0.99-1.75)	0.07		92/429	1.26 (0.86-1.84)	0.24	
CYP17A1	rs619824	10	CC	132/205	1.00	0.52	0.25	21/205	1.00	0.31	0.71	40/99	1.00	0.62	0.74	19/99	1.00	0.85	0.64
			CA	175/304	0.89 (0.66-1.21)			44/304	1.51 (0.84-2.71)			150/338	1.15 (0.75-1.77)			62/338	0.98 (0.55-1.75)		
			AA	70/126	0.8 (0.54-1.18)			14/126	1.06 (0.50-2.25)			125/298	1.01 (0.65-1.56)			66/298	1.10 (0.61-1.96)		
			CA/AA	245/430	0.86 (0.65-1.15)	0.32		58/430	1.37 (0.78-2.39)	0.27		275/636	1.08 (0.72-1.63)	0.70		128/636	1.04 (0.6-1.79)	0.90	
CYP19A1	rs10046	15	AA	115/179	1.00	0.29	0.12	15/179	1.00	0.55	0.38	21/44	1.00	0.85	0.80	12/44	1.00	0.07	0.40
			AG	190/320	0.87 (0.64-1.19)			43/320	1.41 (0.74-2.67)			121/271	0.85 (0.47-1.52)			41/271	0.46 (0.22-0.97)		
			GG	72/137	0.73 (0.49-1.08)			21/137	1.4 (0.67-2.94)			173/420	0.86 (0.49-1.52)			93/420	0.73 (0.36-1.48)		
			AG/GG	262/457	0.83 (0.62-1.11)	0.21		64/457	1.41 (0.76-2.6)	0.28		294/691	0.85 (0.49-1.49)	0.58		134/691	0.62 (0.31-1.24)	0.18	
CYP19A1	rs11575899	15	II	171/274	1.00	0.07	0.09	27/274	1.00	0.56	0.59	145/332	1.00	1.00	1.00	70/332	1.00	0.67	0.93
			ID	175/284	0.99 (0.74-1.32)			41/284	1.34 (0.78-2.29)			132/316	0.99 (0.74-1.33)			56/316	0.89 (0.6-1.32)		
			DD	30/78	0.57 (0.35-0.93)			11/78	1.07 (0.48-2.39)			36/86	1.01 (0.64-1.59)			20/86	1.14 (0.64-2.02)		
			ID/DD	205/362	0.90 (0.68-1.18)	0.43		52/362	1.27 (0.76-2.14)	0.36		168/402	0.99 (0.75-1.31)	0.97		76/402	0.94 (0.65-1.36)	0.75	
CYP19A1	rs2445765	15	CC	260/428	1.00	0.25	0.18	52/428	1.00	0.58	0.88	179/407	1.00	0.32	0.35	90/407	1.00	0.35	0.18
			CG	111/185	0.91 (0.68-1.23)			23/185	0.81 (0.45-1.44)			123/275	1 (0.75-1.33)			48/275	0.76 (0.51-1.13)		
			GG	6/23	0.45 (0.17-1.18)			4/23	1.45 (0.46-4.63)			13/53	0.6 (0.31-1.17)			9/53	0.75 (0.34-1.63)		
			CG/GG	117/208	0.87 (0.65-1.16)	0.34		27/208	0.87 (0.51-1.50)	0.62		136/328	0.94 (0.71-1.25)	0.68		57/328	0.76 (0.52-1.1)	0.15	
CYP19A1	rs4775936	15	GG	88/175	1.00	0.16	0.10	23/175	1.00	0.66	0.90	225/538	1.00	0.95	0.86	113/538	1.00	0.34	0.57
			GA	202/321	1.35 (0.97-1.89)			43/321	1.20 (0.68-2.13)			81/177	1.05 (0.76-1.45)			29/177	0.75 (0.47-1.19)		
			AA	85/139	1.38 (0.93-2.06)			13/139	0.90 (0.42-1.93)			8/21	0.96 (0.41-2.27)			5/21	1.45 (0.51-4.16)		
			GA/AA	287/460	1.36 (0.99-1.87)	0.06		56/460	1.12 (0.64-1.94)	0.70		89/198	1.04 (0.76-1.42)	0.81		34/198	0.81 (0.52-1.25)	0.34	
CYP19A1	rs700518	15	GG	94/159	1.00	0.39	0.25	14/159	1.00	0.67	0.41	13/31	1.00	0.64	0.44	7/31	1.00	0.32	0.46
			GA	203/325	0.99 (0.71-1.37)			41/325	1.3 (0.67-2.52)			112/232	1.1 (0.54-2.22)			38/232	0.61 (0.24-1.55)		
			AA	80/152	0.79 (0.53-1.17)			23/152	1.38 (0.66-2.89)			190/472	0.95 (0.48-1.9)			101/472	0.82 (0.34-2)		
			GA/AA	283/477	0.92 (0.68-1.26)	0.62		64/477	1.33 (0.7-2.5)	0.38		302/704	1.01 (0.51-1.99)	0.98		139/704	0.75 (0.31-1.81)	0.52	
CYP19A1	rs700519	15	GG	352/592	1.00	0.71	0.72	76/592	1.00	0.43	N/A	224/511	1.00	0.43	0.37	104/511	1.00	0.88	0.61
			GA	24/42	0.96 (0.56-1.66)			3/42	0.44 (0.13-1.53)			86/201	0.96 (0.7-1.31)			39/201	0.92 (0.6-1.39)		
			AA	1/1	0.15 (0-13.97)			0/1	N/A			5/24	0.51 (0.19-1.41)			4/24	0.81 (0.27-2.5)		
			GA/AA	25/43	0.93 (0.54-1.61)	0.80		3/43	0.43 (0.12-1.5)	0.19		91/225	0.91 (0.67-1.24)	0.56		43/225	0.91 (0.61-1.36)	0.63	
CYP19A1	rs727479	15	AA	169/272	1.00	0.09	0.16	27/272	1.00	0.52	0.55	199/460	1.00	0.49	0.83	97/460	1.00	0.75	0.47
			AC	177/283	1.03 (0.77-1.36)			41/283	1.36 (0.79-2.33)			98/245	0.92 (0.68-1.24)			45/245	0.91 (0.61-1.35)		
			CC	31/80	0.61 (0.37-0.98)			11/80	1.10 (0.49-2.43)			18/31	1.37 (0.72-2.58)			5/31	0.72 (0.26-1.98)		

			AC/CC	208/363	0.93 (0.71-1.22)	0.60		52/363	1.30 (0.78-2.18)	0.32		116/276	0.97 (0.73-1.29)	0.84		50/276	0.88 (0.6-1.3)	0.53	
CYP19A1	rs749292	15	GG	101/182	1.00	0.71	0.45	22/182	1.00	0.77	0.59	83/200	1.00	0.90	0.67	44/200	1.00	0.39	0.99
			GA	198/324	1.13 (0.82-1.55)			42/324	1.23 (0.69-2.2)			163/362	0.98 (0.71-1.36)			65/362	0.78 (0.51-1.21)		
			AA	77/130	1.15 (0.78-1.71)			15/130	1.19 (0.57-2.47)			67/174	0.92 (0.62-1.36)			38/174	1.03 (0.62-1.69)		
			GA/AA	275/454	1.13 (0.84-1.54)	0.41		57/454	1.22 (0.7-2.12)	0.48		230/536	0.96 (0.71-1.31)	0.80		103/536	0.86 (0.57-1.28)	0.45	
CYP1A1	rs1378942	15	AA	141/240	1.00	0.80	0.79	32/240	1.00	0.87	0.60	6/11	1.00	0.16	0.06	2/11	1.00	0.83	0.66
			AC	180/317	0.96 (0.72-1.29)			37/317	0.92 (0.54-1.56)			61/115	0.69 (0.23-2.08)			18/115	0.77 (0.15-4.07)		
			CC	56/77	1.11 (0.72-1.71)			10/77	0.81 (0.35-1.86)			247/610	0.51 (0.17-1.51)			127/610	0.92 (0.18-4.57)		
			AC/CC	236/394	0.99 (0.75-1.31)	0.95		47/394	0.89 (0.54-1.49)	0.67		308/725	0.57 (0.2-1.68)	0.31		145/725	0.88 (0.18-4.38)	0.88	
CYP1A1	rs1799814	15	CC	322/554	1.00	0.67	0.52	67/554	1.00	0.94	0.96	310/727	1.00	0.66	N/A	145/727	1.00	0.77	N/A
			CA	46/72	1.21 (0.8-1.83)			9/72	1.07 (0.49-2.33)			4/8	1.33 (0.38-4.70)			1/8	0.73 (0.09-6.12)		
			AA	6/9	0.95 (0.31-2.93)			1/9	0.71 (0.08-6.47)			0/0	N/A			0/0	N/A		
			CA/AA	52/81	1.17 (0.79-1.74)	0.43		10/81	1.02 (0.49-2.14)	0.96		4/8	1.33 (0.38-4.7)	0.66		1/8	0.73 (0.09-6.12)	0.77	
CYP1A2	rs2470893	15	GG	210/350	1.00	0.25	0.40	48/350	1.00	0.33	0.20	270/668	1.00	**0.02**	**0.006**	138/668	1.00	0.72	N/A
			GA	149/244	1.03 (0.78-1.37)			29/244	0.89 (0.53-1.5)			41/64	1.78 (1.14-2.79)			8/64	0.72 (0.33-1.59)		
			AA	18/42	0.61 (0.33-1.13)			2/42	0.33 (0.07-1.45)			3/3	2.80 (0.52-14.99)			0/3	N/A		
			GA/AA	167/286	0.97 (0.74-1.27)	0.82		31/286	0.8 (0.48-1.33)	0.40		44/67	1.82 (1.18-2.83)	**0.007**		8/67	0.69 (0.31-1.52)	0.35	
CYP1A2	rs2472297	15	GG	251/444	1.00	0.59	0.54	57/444	1.00	0.94	0.31	282/680	1.00	0.16	0.05	140/680	1.00	0.82	N/A
			GA	113/173	1.16 (0.86-1.57)			21/173	0.9 (0.51-1.58)			31/54	1.54 (0.94-2.51)			7/54	0.76 (0.33-1.77)		
			AA	11/18	0.9 (0.4-2.04)			0/18	0 (0-.)			2/2	2.70 (0.35-20.95)			0/2	N/A		
			GA/AA	124/191	1.13 (0.85-1.52)	0.41		21/191	0.82 (0.47-1.44)	0.50		33/56	1.58 (0.97-2.55)	0.06		7/56	0.74 (0.32-1.73)	0.49	
CYP1A2	rs2472304	15	AA	134/228	1.00	0.86	1.00	30/228	1.00	0.86	0.62	7/11	1.00	0.15	0.06	2/11	1.00	0.48	0.32
			AG	181/318	0.94 (0.7-1.27)			37/318	0.87 (0.51-1.48)			66/130	0.59 (0.21-1.71)			18/130	0.68 (0.13-3.6)		
			GG	60/85	1.04 (0.68-1.58)			12/85	0.86 (0.39-1.89)			241/592	0.46 (0.16-1.30)			127/592	0.96 (0.19-4.8)		
			AG/GG	241/403	0.96 (0.73-1.27)	0.79		49/403	0.86 (0.52-1.44)	0.58		307/722	0.51 (0.18-1.43)	0.20		145/722	0.89 (0.18-4.4)	0.88	
CYP1A2	rs762551	15	AA	183/301	1.00	0.70	0.68	38/301	1.00	0.92	0.68	102/250	1.00	0.97	0.89	52/250	1.00	0.39	0.22
			AC	165/290	0.89 (0.67-1.18)			36/290	0.92 (0.55-1.54)			154/348	1.04 (0.76-1.42)			74/348	0.93 (0.62-1.4)		
			CC	29/44	1.03 (0.61-1.75)			5/44	0.84 (0.3-2.34)			59/137	1.02 (0.69-1.52)			21/137	0.68 (0.38-1.2)		
			AC/CC	194/334	0.91 (0.7-1.19)	0.50		41/334	0.91 (0.55-1.49)	0.70		213/485	1.03 (0.77-1.39)	0.82		95/485	0.86 (0.58-1.27)	0.45	
CYP1B1	rs1056836	2	GG	114/191	1.00	0.76	0.47	24/191	1.00	0.41	0.95	17/39	1.00	0.94	0.82	11/39	1.00	0.43	0.33
			GC	190/329	1.05 (0.77-1.44)			44/329	1.34 (0.75-2.4)			116/284	0.95 (0.5-1.79)			53/284	0.64 (0.3-1.38)		
			CC	71/115	1.17 (0.78-1.74)			11/115	0.88 (0.4-1.96)			182/413	1 (0.53-1.86)			83/413	0.61 (0.29-1.29)		
			GC/CC	261/444	1.08 (0.8-1.46)	0.60		55/444	1.21 (0.69-2.13)	0.50		298/697	0.97 (0.53-1.8)	0.93		136/697	0.62 (0.3-1.29)	0.20	
CYP1B1	rs1800440	2	AA	246/439	1.00	0.56	0.35	55/439	1.00	0.78	0.50	288/691	1.00	0.16	N/A	141/691	1.00	0.98	N/A
			AG	117/173	1.18 (0.87-1.59)			22/173	0.89 (0.5-1.56)			27/37	1.69 (0.98-2.91)			6/37	0.91 (0.36-2.28)		
			GG	14/20	1.1 (0.53-2.29)			2/20	0.61 (0.12-2.97)			0/4	0 (0-.)			0/4	N/A		
			AG/GG	131/193	1.17 (0.88-1.56)	0.29		24/193	0.86 (0.49-1.48)	0.58		27/41	1.54 (0.91-2.63)	0.11		6/41	0.82 (0.33-2.04)	0.67	
CYP2C9	rs1057910	10	AA	321/532	1.00	0.94	0.91	65/532	1.00	0.90	N/A	301/708	1.00	0.47	N/A	139/708	1.00	0.68	N/A
			AC	51/93	0.96 (0.65-1.41)			13/93	1.17 (0.6-2.29)			12/19	1.33 (0.61-2.86)			3/19	0.77 (0.22-2.71)		
			CC	2/4	1.28 (0.22-7.51)			0/4	N/A			0/0	N/A			1/0	N/A		
			AC/CC	53/97	0.97 (0.66-1.41)	0.86		13/97	1.14 (0.58-2.23)	0.71		12/19	1.33 (0.61-2.86)	0.47		4/19	1.04 (0.34-3.21)	0.94	
CYP3A4	rs4987161	7	AA	366/627	1.00	0.24	0.21	77/627	1.00	0.94	N/A	308/734	1.00	1.00	N/A	147/734	N/A	N/A	N/A
			AG	10/7	2.41 (0.87-6.68)			2/7	1.39 (0.22-8.78)			6/0	N/A			0/0	N/A		
			GG	0/1	0 (0-.)			0/1	N/A			0/0	N/A			0/0	N/A		
			AG/GG	10/8	2.12 (0.80-5.68)	0.13		2/8	1.25 (0.2-7.67)	0.81		6/0	N/A	N/A		0/0	N/A	N/A	
CYP3A5	rs776746	7	GG	318/541	1.00	0.28	0.46	67/541	1.00	1.00	N/A	27/79	1.00	0.54	0.75	10/79	1.00	0.42	0.49
			GA	58/91	0.94 (0.64-1.39)			12/91	0.97 (0.48-1.96)			142/298	1.32 (0.80-2.20)			62/298	1.64 (0.78-3.46)		
			AA	1/3	0.11 (0.01-1.66)			0/3	N/A			146/359	1.23 (0.74-2.06)			74/359	1.57 (0.74-3.32)		
			GA/AA	59/94	0.91 (0.62-1.34)	0.63		12/94	0.92 (0.46-1.86)	0.82		288/657	1.28 (0.79-2.09)	0.32		136/657	1.61 (0.78-3.30)	0.20	
CYP3A7	rs2257401	7	GG	302/526	1.00	0.23	0.89	66/526	1.00	0.93	0.70	64/160	1.00	0.91	0.69	21/160	1.00	0.15	0.13
			GC	72/103	1.11 (0.78-1.58)			12/103	0.89 (0.44-1.76)			160/375	1.07 (0.75-1.54)			80/375	1.67 (0.98-2.85)		
			CC	2/6	0.22 (0.04-1.39)			1/6	0.80 (0.08-8.00)			81/194	1.09 (0.72-1.64)			45/194	1.67 (0.93-3.00)		
			GC/CC	74/109	1.04 (0.73-1.48)	0.81		13/109	0.88 (0.45-1.72)	0.71		241/569	1.08 (0.76-1.52)	0.67		125/569	1.67 (0.99-2.80)	0.07	
ESR1	rs1801132	6	GG	219/433	1.00	**0.004**	**0.002**	47/433	1.00	0.17	0.10	247/575	1.00	0.95	0.76	115/575	1.00	0.43	0.61
			GC	130/185	1.34 (1.00-1.80)			27/185	1.25 (0.73-2.14)			65/153	0.96 (0.68-1.35)			28/153	0.99 (0.61-1.58)		
			CC	25/18	2.69 (1.38-5.23)			5/18	2.69 (0.92-7.89)			3/6	0.85 (0.20-3.68)			3/6	2.62 (0.61-11.29)		

			GC/CC	155/203	1.46 (1.10-1.93)	**0.008**		32/203	1.38 (0.84-2.30)	0.21		68/159	0.95 (0.68-1.34)	0.78		31/159	1.05 (0.66-1.66)	0.84	
ESR1	rs2046210	6	GG	132/256	1.00	**0.04**	**0.02**	30/256	1.00	0.18	0.44	37/109	1.00	0.05	0.59	24/109	1.00	0.59	0.75
			GA	183/310	1.11 (0.82-1.49)			34/310	0.82 (0.48-1.42)			162/316	1.49 (0.96-2.3)			57/316	0.75 (0.44-1.30)		
			AA	62/70	1.74 (1.14-2.67)			14/70	1.62 (0.79-3.32)			116/309	1.08 (0.69-1.7)			66/309	0.84 (0.49-1.45)		
			GA/AA	245/380	1.22 (0.92-1.61)	0.17		48/380	0.97 (0.58-1.61)	0.90		278/625	1.3 (0.85-1.97)	0.22		123/625	0.8 (0.48-1.32)	0.38	
ESR1	rs2228480	6	GG	255/444	1.00	0.28	0.97	54/444	1.00	0.71	0.84	207/515	1.00	0.26	0.10	99/515	1.00	0.74	0.92
			GA	111/165	1.13 (0.83-1.53)			23/165	1.06 (0.61-1.84)			92/193	1.23 (0.9-1.68)			41/193	1.11 (0.73-1.67)		
			AA	6/18	0.52 (0.19-1.39)			1/18	0.41 (0.04-3.91)			11/17	1.57 (0.7-3.54)			2/17	0.64 (0.14-2.86)		
			GA/AA	117/183	1.07 (0.79-1.43)	0.67		24/183	1.01 (0.59-1.73)	0.98		103/210	1.26 (0.94-1.7)	0.13		43/210	1.07 (0.71-1.6)	0.76	
ESR1	rs2234693	6	AA	123/185	1.00	0.45	0.78	20/185	1.00	0.90	0.78	71/168	1.00	0.59	0.47	30/168	1.00	0.30	0.75
			AG	182/331	0.84 (0.61-1.14)			44/331	1.15 (0.64-2.06)			159/355	1.04 (0.73-1.47)			81/355	1.29 (0.81-2.08)		
			GG	72/119	0.99 (0.67-1.47)			15/119	1.09 (0.51-2.3)			84/212	0.88 (0.59-1.3)			36/212	0.94 (0.55-1.63)		
			AG/GG	254/450	0.88 (0.66-1.17)	0.37		59/450	1.13 (0.65-1.98)	0.66		243/567	0.98 (0.7-1.36)	0.89		117/567	1.16 (0.74-1.83)	0.51	
ESR1	rs3020314	6	AA	157/331	1.00	**0.005**	**0.001**	29/331	1.00	**0.03**	**0.02**	24/58	1.00	0.96	0.84	13/58	1.00	0.72	0.63
			AG	169/254	1.46 (1.1-1.95)			43/254	2.01 (1.19-3.39)			126/297	0.98 (0.57-1.69)			57/297	0.76 (0.38-1.52)		
			GG	51/51	1.88 (1.18-3.00)			7/51	1.78 (0.71-4.48)			165/381	1.02 (0.59-1.74)			77/381	0.77 (0.39-1.52)		
			AG/GG	220/305	1.53 (1.17-2.01)	**0.002**		50/305	1.97 (1.19-3.27)	**0.01**		291/678	1 (0.59-1.69)	1.00		134/678	0.76 (0.39-1.48)	0.42	
ESR1	rs3798577	6	AA	105/196	1.00	0.34	0.88	26/196	1.00	0.90	0.65	108/247	1.00	0.35	0.72	48/247	1.00	0.83	0.69
			AG	204/309	1.18 (0.86-1.62)			39/309	0.9 (0.52-1.56)			134/343	0.86 (0.63-1.18)			74/343	1.02 (0.68-1.55)		
			GG	67/130	0.93 (0.62-1.39)			14/130	0.86 (0.42-1.77)			73/144	1.12 (0.77-1.63)			25/144	0.87 (0.51-1.51)		
			AG/GG	271/439	1.11 (0.82-1.49)	0.50		53/439	0.89 (0.53-1.5)	0.66		207/487	0.94 (0.7-1.25)	0.67		99/487	0.98 (0.66-1.45)	0.93	
ESR1	rs9383938	6	CC	299/519	1.00	0.47	0.33	61/519	1.00	0.44	0.21	228/515	1.00	0.66	0.87	97/515	1.00	0.16	0.39
			CA	73/111	1.23 (0.87-1.74)			16/111	1.34 (0.72-2.49)			79/205	0.91 (0.66-1.25)			49/205	1.37 (0.92-2.04)		
			AA	3/6	0.83 (0.18-3.74)			2/6	2.32 (0.42-12.95)			8/15	1.34 (0.54-3.34)			1/15	0.34 (0.04-2.72)		
			CA/AA	76/117	1.21 (0.86-1.71)	0.27		18/117	1.4 (0.78-2.54)	0.26		87/220	0.94 (0.69-1.27)	0.68		50/220	1.3 (0.87-1.92)	0.20	
ESR1	rs9397435	6	AA	305/541	1.00	0.21	0.09	65/541	1.00	0.37	0.34	259/604	1.00	0.79	0.87	122/604	1.00	0.97	N/A
			AG	69/90	1.38 (0.96-1.99)			12/90	1.11 (0.56-2.22)			54/125	1.02 (0.71-1.47)			25/125	0.94 (0.57-1.53)		
			GG	3/5	1.35 (0.31-5.87)			2/5	3.39 (0.61-18.98)			2/7	0.56 (0.11-2.97)			0/7	N/A		
			AG/GG	72/95	1.38 (0.96-1.97)	0.08		14/95	1.24 (0.65-2.37)	0.52		56/132	1 (0.7-1.42)	0.99		25/132	0.89 (0.55-1.45)	0.64	
ESR2	rs1255998	14	CC	281/503	1.00	0.36	0.59	62/503	1.00	0.65	0.58	71/154	1.00	0.89	0.96	25/154	1.00	0.61	.65475
			CG	91/125	1.18 (0.85-1.64)			16/125	0.94 (0.51-1.74)			151/377	0.92 (0.65-1.32)			78/377	1.29 (0.78-2.13)		
			GG	4/7	0.45 (0.09-2.31)			1/7	0.28 (0.02-4.24)			91/204	0.98 (0.66-1.46)			42/204	1.17 (0.67-2.05)		
			CG/GG	95/132	1.14 (0.83-1.58)	0.42		17/132	0.89 (0.48-1.65)	0.72		242/581	0.94 (0.68-1.32)	0.73		120/581	1.25 (0.77-2.02)	0.37	
ESR2	rs1256049	14	GG	355/598	1.00	0.85	N/A	78/598	1.00	0.24	N/A	266/595	1.00	0.45	0.22	118/595	1.00	1.00	N/A
			GA	21/35	0.84 (0.46-1.52)			1/35	0.17 (0.02-1.31)			45/129	0.79 (0.54-1.16)			29/129	1.02 (0.64-1.63)		
			AA	0/1	N/A			0/1	N/A			3/11	0.74 (0.2-2.8)			0/11	N/A		
			GA/AA	21/36	0.81 (0.45-1.47)	0.50		1/36	0.17 (0.02-1.27)	0.08		48/140	0.79 (0.54-1.14)	0.21		29/140	0.94 (0.59-1.5)	0.80	
ESR2	rs1256065	14	AA	135/227	1.00	0.98	0.83	27/227	1.00	0.36	0.71	249/573	1.00	0.33	0.57	110/573	1.00	0.31	0.40
			AC	173/291	0.98 (0.72-1.32)			42/291	1.25 (0.72-2.16)			65/150	1.03 (0.72-1.45)			37/150	1.41 (0.91-2.19)		
			CC	69/118	0.96 (0.65-1.42)			10/118	0.75 (0.34-1.65)			1/12	0.21 (0.03-1.66)			0/12	N/A		
			AC/CC	242/409	0.97 (0.73-1.29)	0.85		52/409	1.11 (0.65-1.88)	0.70		66/162	0.97 (0.69-1.37)	0.86		37/162	1.33 (0.86-2.05)	0.21	
ESR2	rs2987983	14	AA	161/275	1.00	0.40	0.39	30/275	1.00	0.66	0.67	47/130	1.00	0.30	0.12	28/130	1.00	0.89	0.94
			AG	161/285	0.97 (0.73-1.3)			41/285	1.26 (0.75-2.13)			144/351	1.19 (0.8-1.79)			66/351	0.89 (0.54-1.48)		
			GG	54/75	1.3 (0.85-1.98)			8/75	1 (0.42-2.42)			123/255	1.38 (0.91-2.09)			53/255	0.95 (0.56-1.61)		
			AG/GG	215/360	1.04 (0.79-1.37)	0.78		49/360	1.21 (0.73-2)	0.46		267/606	1.27 (0.87-1.86)	0.22		119/606	0.92 (0.57-1.47)	0.72	
ESR2	rs3020450	14	GG	160/265	1.00	0.21	0.33	30/265	1.00	0.83	0.67	99/249	1.00	0.45	0.53	59/249	1.00	0.31	0.46
			GA	162/298	0.94 (0.7-1.26)			41/298	1.17 (0.69-1.99)			160/356	1.22 (0.89-1.66)			60/356	0.73 (0.48-1.1)		
			AA	55/73	1.37 (0.9-2.09)			8/73	1.08 (0.45-2.58)			56/129	1.08 (0.72-1.62)			28/129	0.90 (0.54-1.50)		
			GA/AA	217/371	1.02 (0.78-1.35)	0.86		49/371	1.16 (0.7-1.92)	0.57		216/485	1.18 (0.88-1.58)	0.27		88/485	0.78 (0.53-1.13)	0.19	
HSD17B2	rs4445895	16	GG	128/221	1.00	0.98	0.96	44/221	1.00	**0.005**	**0.01**	133/352	1.00	0.12	**0.04**	72/352	1.00	0.53	0.67
			GA	187/309	1.03 (0.76-1.39)			24/309	0.41 (0.24-0.71)			139/308	1.23 (0.92-1.66)			65/308	1.08 (0.74-1.59)		
			AA	61/106	1 (0.67-1.5)			11/106	0.54 (0.26-1.12)			43/75	1.54 (0.99-2.40)			10/75	0.71 (0.35-1.47)		
			GA/AA	248/415	1.02 (0.77-1.36)	0.89		35/415	0.44 (0.27-0.73)	**0.001**		182/383	1.29 (0.98-1.71)	0.07		75/383	1.01 (0.7-1.46)	0.95	
PR	rs1042838	11	CC	268/435	1.00	0.40	0.48	57/435	1.00	0.99	N/A	298/678	1.00	0.13	0.13	141/678	1.00	0.07	N/A
			CA	93/177	0.82 (0.6-1.12)			21/177	1.04 (0.6-1.81)			15/49	0.61 (0.32-1.16)			4/49	0.37 (0.12-1.08)		
			AA	12/17	1.22 (0.54-2.75)			0/17	N/A			0/0	N/A			0/0	N/A		

			CA/AA	105/194	0.86 (0.64-1.15)	0.31		21/194	0.93 (0.54-1.62)	0.81		15/49	0.61 (0.32-1.16)	0.13		4/49	0.37 (0.12-1.08)	0.07	
SRD5A1	rs3736316	5	GG	135/222	1.00	0.90	0.64	31/222	1.00	0.79	0.50	148/342	1.00	0.55	0.48	67/342	1.00	0.84	0.61
			GA	178/299	0.96 (0.71-1.29)			36/299	0.87 (0.51-1.48)			131/324	0.99 (0.74-1.32)			66/324	1.12 (0.76-1.65)		
			AA	64/114	0.91 (0.61-1.36)			12/114	0.79 (0.37-1.67)			35/70	1.28 (0.8-2.04)			14/70	1.1 (0.58-2.11)		
			GA/AA	242/413	0.94 (0.71-1.25)	0.69		48/413	0.85 (0.51-1.41)	0.52		166/394	1.04 (0.79-1.37)	0.79		80/394	1.12 (0.77-1.62)	0.55	
SRD5A1	rs3822430	5	AA	140/223	1.00	0.70	0.42	31/223	1.00	0.79	0.50	148/343	1.00	0.50	0.44	67/343	1.00	0.81	0.57
			AG	173/296	0.9 (0.67-1.21)			36/296	0.88 (0.51-1.5)			130/323	0.99 (0.74-1.33)			66/323	1.13 (0.77-1.66)		
			GG	64/116	0.86 (0.58-1.28)			12/116	0.78 (0.37-1.66)			35/69	1.3 (0.81-2.08)			14/69	1.12 (0.58-2.14)		
			AG/GG	237/412	0.89 (0.67-1.18)	0.41		48/412	0.85 (0.51-1.42)	0.54		165/392	1.04 (0.79-1.38)	0.76		80/392	1.13 (0.78-1.63)	0.52	
SRD5A2	rs523349	2	CC	187/312	1.00	0.63	0.75	36/312	1.00	0.57	0.77	184/370	1.00	0.08	0.08	82/370	1.00	0.58	0.30
			CG	156/257	1.06 (0.8-1.41)			36/257	1.28 (0.76-2.17)			107/308	0.69 (0.51-0.99)			57/308	0.86 (0.58-1.26)		
			GG	34/65	0.83 (0.51-1.36)			7/65	0.9 (0.37-2.22)			24/58	0.90 (0.53-1.52)			8/58	0.71 (0.32-1.6)		
			CG/GG	190/322	1.01 (0.77-1.33)	0.93		43/322	1.2 (0.73-1.98)	0.48		131/366	0.72 (0.54-1.14)	0.09		65/366	0.84 (0.58-1.21)	0.34	
UGT1A1	rs10929302	2	GG	175/291	1.00	0.45	0.43	38/291	1.00	0.50	0.94	160/368	1.00	0.69	0.81	73/368	1.00	0.07	0.49
			GA	169/278	1.02 (0.76-1.35)			31/278	0.8 (0.47-1.38)			132/300	1.06 (0.79-1.41)			68/300	1.21 (0.83-1.76)		
			AA	33/67	0.75 (0.46-1.21)			10/67	1.26 (0.58-2.72)			23/65	0.84 (0.49-1.42)			5/65	0.39 (0.15-1.03)		
			GA/AA	202/345	0.96 (0.73-1.26)	0.77		41/345	0.89 (0.54-1.47)	0.65		155/365	1.02 (0.77-1.34)	0.90		73/365	1.06 (0.73-1.53)	0.76	
UGT1A1	rs4124874	2	AA	96/184	1.00	0.28	0.70	26/184	1.00	0.57	0.81	10/20	1.00	0.09	0.08	6/20	1.00	0.36	0.85
			AC	190/294	1.28 (0.92-1.77)			32/294	0.74 (0.41-1.34)			81/241	0.72 (0.31-1.66)			39/241	0.5 (0.18-1.41)		
			CC	91/158	1.07 (0.73-1.56)			21/158	0.94 (0.49-1.78)			223/474	1.03 (0.45-2.33)			102/474	0.61 (0.22-1.67)		
			AC/CC	281/452	1.2 (0.89-1.63)	0.24		53/452	0.81 (0.47-1.39)	0.45		304/715	0.9 (0.4-2.03)	0.80		141/715	0.57 (0.21-1.53)	0.26	
UGT1A6	rs2070959	2	AA	163/256	1.00	0.80	0.80	36/256	1.00	0.08	0.73	172/443	1.00	0.10	0.42	89/443	1.00	0.16	0.40
			AG	170/306	0.91 (0.68-1.22)			28/306	0.57 (0.32-1.01)			130/243	1.46 (1.10-1.95)			54/243	1.1 (0.75-1.62)		
			GG	44/71	1.01 (0.64-1.57)			15/71	1.63 (0.82-3.27)			12/49	0.61 (0.31-1.19)			3/49	0.33 (0.1-1.11)		
			AG/GG	214/377	0.93 (0.71-1.22)	0.61		43/377	0.76 (0.46-1.26)	0.29		142/292	1.31 (0.92-1.73)	0.08		57/292	0.98 (0.67-1.42)	0.90	
UGT1A9	rs6714486	2	TT	324/567	1.00	0.40	0.32	75/567	1.00	0.41	N/A	240/513	1.00	0.09	**0.04**	101/513	1.00	0.16	0.39
			TA	45/60	1.35 (0.87-2.1)			4/60	0.47 (0.16-1.41)			64/187	0.70 (0.50-0.98)			43/187	1.08 (0.71-1.63)		
			AA	0/2	N/A			0/2	N/A			10/26	0.70 (0.31-1.56)			1/26	0.14 (0.02-1.14)		
			TA/AA	45/62	1.3 (0.84-2.01)	0.23		4/62	0.45 (0.15-1.35)	0.16		74/213	0.70 (0.51-0.96)	**0.03**		44/213	0.96 (0.64-1.44)	0.84	
UGT2B15	rs1902023	4	AA	110/166	1.00	0.07	0.06	23/166	1.00	0.33	0.14	52/142	1.00	0.20	0.98	21/142	1.00	0.27	0.35
			AC	193/322	0.82 (0.59-1.12)			40/322	0.80 (0.45-1.41)			167/354	1.35 (0.92-1.97)			77/354	1.57 (0.91-2.7)		
			CC	71/147	0.62 (0.42-0.93)			15/147	0.57 (0.27-1.19)			95/240	1.07 (0.71-1.62)			49/240	1.43 (0.80-2.54)		
			AC/CC	264/469	0.76 (0.56-1.02)	0.07		55/469	0.73 (0.42-1.25)	0.25		262/594	1.23 (0.86-1.77)	0.26		126/594	1.51 (0.90-2.54)	0.12	

Abbrevations: Ca/Co, number of cases and controls. OR, odds ratio; 95%CI, 95% confidence interval; p-trend, p value for linear trend before correction for mutiple testing.

a. Adjusted for age at diagnosis (continuous), education (less than high school, high school, college and graduate school), family history of breast cancer (yes, no), history of benign breast disease (yes, no), menopausal status (premenopausal, postmenopausal), number of full pregnancy (continuous), breast feeding (yes, no, nulliparous) , Hormone Replacement Therapy (HRT, yes, no), body mass index (continuous), proportion of European ancestry (continuous) and estrogen months

b. P, p value calculated using a genotypic (codominant) model.

c. OR, 95%CI and corresponding p values were also caculated for each SNP after herozygotes and rare homozygotes (dominant model).