

Supplemental Table IV: Univariate associations between estrogen-related genotypes and steroid-hormone-level covariates by gender and menopausal status.

Trait	Men			P	Premenopausal women			P	Postmenopausal women			P
	Mean±SD				Mean±SD				Mean±SD			
<b><i>CYP19A1 rs700518</i></b>	<b>G/G (212)</b>	<b>G/A (307)</b>	<b>A/A (162)</b>		<b>G/G (89)</b>	<b>G/A (116)</b>	<b>A/A (68)</b>		<b>G/G (72)</b>	<b>G/A (138)</b>	<b>A/A (72)</b>	
Age, years	49±9	51±10	51±10	0.07	43±6	42±6	42±5	0.60	58±6	57±7	58±6	0.12
Physical activity score*	37±8	39±7	36±7	0.09	36±7	38±8	38±10	0.69	38±8	37±8	36±7	0.36
BMI, kg/m <sup>2</sup>	28±4	28±4	27±3	0.75	26±6	25±5	25±5	0.37	25±5	26±6	28±5	<b>0.005</b>
Smoking, %	28	23	24	0.40	31	24	28	0.51	24	29	24	0.59
Alcohol, oz/week	4±4	4±5	4±5	0.39	2±2	2±3	2±3	0.59	2±3	2±3	2±2	0.11
<b><i>CYP19A1 (TTA)<sub>n</sub></i></b>	<b>S/S (192)</b>	<b>S/L (333)</b>	<b>L/L (168)</b>		<b>S/S (73)</b>	<b>S/L (142)</b>	<b>L/L (70)</b>		<b>S/S (71)</b>	<b>S/L (154)</b>	<b>L/L (64)</b>	
Age, years	49±10	52±10	51±10	<b>0.03</b>	43±6	42±6	42±5	0.71	58±6	57±6	57±6	0.29
Physical activity score*	37±7	38±7	36±7	0.08	37±6	38±9	38±9	0.96	36±7	37±8	39±9	0.13
BMI, kg/m <sup>2</sup>	28±4	28±4	27±3	0.80	26±7	25±5	26±6	0.80	28±5	26±5	27±6	0.05
Smoking, %	30	24	28	0.31	36	29	29	0.55	30	25	23	0.70
Alcohol, oz/week	4±4	4±5	4±5	0.83	1±2	2±3	2±4	0.34	2±2	2±3	2±3	0.29
<b><i>CYP19A1 rs726547</i></b>	<b>C/C (719)</b>	<b>C/T (85)</b>	<b>T/T (0)</b>		<b>C/C (290)</b>	<b>C/T (37)</b>	<b>T/T (2)</b>		<b>C/C (290)</b>	<b>C/T (33)</b>	<b>T/T (1)</b>	
Age, years	51±10	49±10	-	0.10	43±6	43±6	38±5	0.36	57±6	58±7	54±.	0.43
Physical activity score*	37±7	38±8	-	0.28	37±8	39±9	31±.	0.39	38±8	36±8	32±.	0.39
BMI, kg/m <sup>2</sup>	28±4	28±4	-	0.70	25±6	24±3	23±2	0.60	27±6	26±5	26±.	0.87
Smoking, %	26	20	-	0.20	31	16	50	0.15	26	24	100	0.24
Alcohol, oz/week	4±5	4±5	-	0.43	2±3	2±2	1±1	0.52	2±3	2±2	0±.	0.45
<b><i>ESR1 (TA)<sub>n</sub></i></b>	<b>L/L (165)</b>	<b>L/S (338)</b>	<b>S/S (167)</b>		<b>L/L (79)</b>	<b>L/S (134)</b>	<b>S/S (68)</b>		<b>L/L (67)</b>	<b>L/S (149)</b>	<b>S/S (73)</b>	
Age, years	51±9	51±10	50±9	0.32	43±5	42±6	42±6	0.45	57±7	57±6	57±6	0.67
Physical activity score*	37±7	37±7	37±8	0.61	38±7	36±7	38±7	0.14	36±7	37±7	37±8	0.36
BMI, kg/m <sup>2</sup>	28±4	28±4	28±3	0.82	26±7	25±4	25±5	0.30	27±6	26±5	27±5	0.57
Smoking, %	26	25	24	0.90	23	31	29	0.45	30	25	31	0.53
Alcohol, oz/week	4±4	4±5	4±4	0.19	2±3	2±4	2±2	0.78	2±3	2±2	2±3	0.41

<b>ESRI rs2077647</b>	<b>T/T (227)</b>	<b>T/C (409)</b>	<b>C/C (161)</b>		<b>T/T (98)</b>	<b>T/C (166)</b>	<b>C/C (66)</b>		<b>T/T (92)</b>	<b>T/C (171)</b>	<b>C/C (59)</b>	
Age, years	50±9	51±10	51±9	0.88	43±6	42±6	43±5	0.60	57±6	57±6	58±7	0.97
Physical activity score*	37±8	37±7	37±7	0.79	38±8	37±8	37±7	0.56	37±8	37±8	36±7	0.57
BMI, kg/m <sup>2</sup>	28±3	28±4	28±4	0.72	25±5	25±5	26±6	0.83	27±6	26±5	28±5	0.20
Smoking, %	26	25	27	0.76	28	32	23	0.36	28	23	31	0.48
Alcohol, oz/week	4±4	5±6	4±5	0.33	2±2	2±4	2±3	0.78	2±3	2±3	2±3	0.66
<b>ESRI rs2234693</b>	<b>T/T (249)</b>	<b>T/C (401)</b>	<b>C/C (162)</b>		<b>T/T (100)</b>	<b>T/C (155)</b>	<b>C/C (78)</b>		<b>T/T (97)</b>	<b>T/C (172)</b>	<b>C/C (60)</b>	
Age, years	50±10	51±10	51±9	0.86	43±5	42±6	43±5	0.62	57±6	57±6	57±7	0.83
Physical activity score*	37±8	37±7	38±7	0.28	37±8	37±8	38±7	0.29	38±9	37±7	35±7	0.14
BMI, kg/m <sup>2</sup>	28±3	28±4	28±4	0.97	25±5	25±5	26±6	0.57	27±5	26±5	27±6	0.42
Smoking, %	28	24	25	0.56	20	30	29	0.99	28	22	37	0.06
Alcohol, oz/week	4±5	4±5	4±5	0.63	2±2	2±4	2±3	0.43	2±3	2±2	2±3	0.69
<b>ESRI rs9340799</b>	<b>A/A (330)</b>	<b>A/G (379)</b>	<b>G/G (111)</b>		<b>A/A (143)</b>	<b>A/G (148)</b>	<b>G/G (42)</b>		<b>A/A (131)</b>	<b>A/G (163)</b>	<b>G/G (37)</b>	
Age, years	50±10	51±10	51±9	0.87	43±5	42±6	43±5	0.90	57±6	57±7	57±7	0.87
Physical activity score*	37±8	37±7	38±8	0.57	37±8	37±8	38±8	0.69	38±9	37±8	35±5	0.48
BMI, kg/m <sup>2</sup>	28±4	28±4	27±3	0.28	25±5	25±5	26±8	0.95	27±5	26±5	26±6	0.99
Smoking, %	28	24	27	0.47	29	32	29	0.83	28	19	46	<b>0.002</b>
Alcohol, oz/week	4±5	5±5	4±4	0.21	2±2	2±2	2±3	0.78	2±3	2±3	2±3	0.30
<b>ESRI rs1801132</b>	<b>C/C (471)</b>	<b>C/G (272)</b>	<b>G/G (45)</b>		<b>C/C (188)</b>	<b>C/G (116)</b>	<b>G/G (21)</b>		<b>C/C (194)</b>	<b>C/G (101)</b>	<b>G/G (21)</b>	
Age, years	51±10	50±9	50±10	0.68	42±6	43±6	44±6	0.45	57±7	57±6	57±8	0.54
Physical activity score*	37±6	38±9	36±8	0.29	37±7	37±9	37±9	0.67	37±8	37±7	37±9	0.80
BMI, kg/m <sup>2</sup>	28±4	27±4	27±4	<b>0.005</b>	25±6	25±5	25±5	0.80	26±5	26±5	28±7	0.40
Smoking, %	22	28	24	0.36	31	28	24	0.76	25	30	19	0.53
Alcohol, oz/week	4±6	4±5	4±4	0.60	2±4	2±2	1±1	0.74	2±3	2±3	2±2	0.69
<b>ESRI (CA)<sub>n</sub></b>	<b>S/S (244)</b>	<b>S/L (298)</b>	<b>L/L (79)</b>		<b>S/S (109)</b>	<b>S/L (115)</b>	<b>L/L (37)</b>		<b>S/S (126)</b>	<b>S/L (115)</b>	<b>L/L (40)</b>	
Age, years	51±10	51±10	51±10	0.99	42±6	42±6	42±6	0.84	58±6	57±6	56±7	0.21
Physical activity score*	37±7	38±8	35±7	<b>0.04</b>	38±7	37±8	35±4	0.26	38±8	36±6	35±8	0.09
BMI, kg/m <sup>2</sup>	28±4	28±3	28±4	0.61	25±6	24±4	27±7	0.07	26±5	27±6	27±6	0.67
Smoking, %	26	26	28	0.93	28	25	27	0.86	27	23	42	0.07
Alcohol, oz/week	4±4	4±5	5±5	0.51	2±4	2±3	1±2	0.86	2±3	2±3	2±2	0.39

<b><i>ESR2 rs1256059</i></b>	<b>C/C (226)</b>	<b>C/T (405)</b>	<b>T/T (169)</b>		<b>C/C (114)</b>	<b>C/T (149)</b>	<b>T/T (63)</b>		<b>C/C (102)</b>	<b>C/T (163)</b>	<b>T/T (56)</b>	
Age, years	51±10	50±10	51±10	0.96	42±6	42±6	43±5	0.38	58±6	58±6	55±6	<b>0.007</b>
Physical activity score*	37±7	37±7	37±8	0.95	38±8	36±8	38±8	0.15	39±9	37±8	37±7	0.14
BMI, kg/m <sup>2</sup>	28±4	28±4	27±4	0.38	25±5	25±6	26±6	0.37	27±6	26±5	26±5	0.70
Smoking, %	25	26	27	0.90	31	28	37	0.49	25	28	29	0.77
Alcohol, oz/week	4±6	4±4	5±5	0.46	2±2	2±3	2±5	0.81	2±3	2±2	3±4	0.41
<b><i>ESR2 (CA)<sub>n</sub></i></b>	<b>S/S (518)</b>	<b>S/L (276)</b>	<b>L/L (27)</b>		<b>S/S (199)</b>	<b>S/L (119)</b>	<b>L/L (18)</b>		<b>S/S (213)</b>	<b>S/L (107)</b>	<b>L/L (17)</b>	
Age, years	51±10	50±10	48±8	0.24	42±6	43±5	44±4	<b>0.04</b>	57±6	57±7	56±7	0.54
Physical activity score*	37±7	37±7	37±6	0.68	37±7	37±8	34±8	0.12	36±7	38±9	38±9	0.25
BMI, kg/m <sup>2</sup>	27±4	28±4	28±4	0.06	25±5	25±6	26±6	0.19	27±5	27±5	26±4	0.75
Smoking, %	24	26	33	0.48	31	26	28	0.62	28	21	35	0.25
Alcohol, oz/week	4±5	4±5	4±5	0.70	2±3	2±4	2±2	0.87	2±3	2±3	3±3	0.38
<b><i>ESR2 rs1256031</i></b>	<b>T/T (214)</b>	<b>T/C (406)</b>	<b>C/C (196)</b>		<b>T/T (95)</b>	<b>T/C (156)</b>	<b>C/C (85)</b>		<b>T/T (99)</b>	<b>T/C (158)</b>	<b>C/C (74)</b>	
Age, years	50±9	51±10	50±10	0.83	42±6	42±6	43±5	0.31	58±6	58±6	55±6	<b>0.01</b>
Physical activity score*	37±7	37±7	37±8	0.60	37±8	36±7	39±9	0.24	39±9	36±8	37±7	0.16
BMI, kg/m <sup>2</sup>	28±4	28±4	28±4	0.32	25±4	25±6	26±6	0.26	27±6	27±5	26±5	0.69
Smoking, %	25	26	27	0.91	31	28	29	0.92	26	27	26	0.99
Alcohol, oz/week	4±6	4±4	4±5	0.68	2±2	2±2	2±5	0.87	2±3	2±2	3±4	0.54

\* - was calculated as the number of hours spent doing certain activity multiplied by a coefficient of estimated oxygen consumption for each activity (see Material and Methods).