

Table S4: Evaluation of SNP-gender interaction in 2,122 European middle-aged men and women (random population sample).

| ID | SNP | Gene | BMI (kg/m ²) | | | | Waist circumference (cm) | | | | Waist circumference (cm) adjusted for BMI | | | |
|----|------------|---------|--------------------------|--------------|-----------------|-----------------|--------------------------|--------------|-----------------|-----------------|---|--------------|-----------------|-----------------|
| | | | Beta (se) | | p (Interaction) | Beta difference | Beta (se) | | p (Interaction) | Beta difference | Beta (se) | | p (Interaction) | Beta difference |
| | | | Men | Women | | | Men | Women | | | Men | Women | | |
| 1 | rs1137100 | LEPR | -0.21 (0.18) | -0.18 (0.19) | 0.90 | -0.03 | -0.87 (0.52) | -0.54 (0.47) | 0.81 | -0.33 | -0.36 (0.25) | -0.15 (0.22) | 0.81 | -0.21 |
| 2 | rs1137101 | LEPR | 0.00 (0.17) | 0.02 (0.17) | 0.99 | -0.02 | -0.61 (0.47) | -0.06 (0.41) | 0.44 | -0.55 | -0.60 (0.22) | -0.10 (0.19) | 0.44 | -0.51 |
| 3 | rs8179183 | LEPR | -0.06 (0.22) | -0.14 (0.22) | 0.68 | 0.08 | 0.33 (0.63) | -0.44 (0.56) | 0.31 | 0.77 | 0.48 (0.29) | -0.12 (0.26) | 0.31 | 0.60 |
| 4 | rs4844880 | HSD11B1 | 0.16 (0.23) | 0.18 (0.23) | 0.78 | -0.02 | 0.62 (0.65) | 0.51 (0.56) | 0.67 | 0.10 | 0.23 (0.30) | 0.12 (0.26) | 0.67 | 0.10 |
| 5 | rs846910 | HSD11B1 | 0.18 (0.38) | -0.36 (0.37) | 0.31 | 0.54 | 0.36 (1.06) | -0.96 (0.93) | 0.32 | 1.32 | -0.08 (0.49) | -0.16 (0.43) | 0.32 | 0.08 |
| 6 | rs3753519 | HSD11B1 | 0.16 (0.27) | 0.02 (0.26) | 0.50 | 0.15 | 0.47 (0.76) | 0.12 (0.65) | 0.51 | 0.36 | 0.06 (0.36) | 0.08 (0.30) | 0.51 | -0.01 |
| 7 | rs11127485 | TMEM18 | 0.10 (0.22) | -0.16 (0.23) | 0.44 | 0.26 | -0.04 (0.63) | -0.43 (0.57) | 0.72 | 0.39 | -0.28 (0.29) | -0.08 (0.26) | 0.72 | -0.20 |
| 8 | rs2241883 | FABP1 | -0.01 (0.17) | -0.18 (0.17) | 0.54 | 0.17 | -0.33 (0.48) | -0.39 (0.42) | 0.94 | 0.06 | -0.31 (0.23) | 0.00 (0.19) | 0.94 | -0.31 |
| 9 | rs7566605 | INSIG2 | -0.02 (0.18) | -0.10 (0.18) | 0.77 | 0.08 | -0.04 (0.50) | 0.00 (0.45) | 0.90 | -0.04 | 0.00 (0.23) | 0.23 (0.21) | 0.90 | -0.22 |
| 10 | rs3762521 | ALPI | 0.07 (0.18) | -0.05 (0.18) | 0.77 | 0.12 | 0.00 (0.51) | -0.07 (0.45) | 0.92 | 0.07 | -0.17 (0.24) | 0.04 (0.21) | 0.92 | -0.21 |
| 11 | rs1801282 | PPARG | -0.09 (0.23) | 0.47 (0.23) | 0.11 | -0.55 | -0.44 (0.65) | 1.45 (0.56) | 0.03 | -1.89 | -0.22 (0.31) | 0.41 (0.26) | 0.03 | -0.64 |
| 12 | rs2279027 | TBC1D1 | 0.11 (0.17) | 0.07 (0.17) | 0.95 | 0.05 | 0.43 (0.47) | 0.06 (0.42) | 0.69 | 0.37 | 0.16 (0.22) | -0.08 (0.19) | 0.69 | 0.24 |
| 13 | rs35859249 | TBC1D1 | 0.39 (0.32) | -0.44 (0.31) | 0.16 | 0.83 | 1.04 (0.89) | -1.07 (0.76) | 0.15 | 2.10 | 0.07 (0.42) | -0.09 (0.35) | 0.15 | 0.16 |
| 14 | rs4832743 | TBC1D1 | 0.06 (0.18) | -0.04 (0.17) | 0.87 | 0.10 | -0.32 (0.50) | -0.15 (0.42) | 0.57 | -0.17 | -0.46 (0.23) | -0.06 (0.19) | 0.57 | -0.40 |
| 15 | rs10517456 | TBC1D1 | 0.00 (0.17) | -0.06 (0.17) | 0.73 | 0.06 | 0.13 (0.47) | 0.24 (0.42) | 0.95 | -0.11 | 0.12 (0.22) | 0.37 (0.19) | 0.95 | -0.25 |
| 16 | rs9999507 | TBC1D1 | 0.26 (0.17) | -0.18 (0.16) | 0.09 | 0.44 | 0.25 (0.47) | -0.50 (0.41) | 0.30 | 0.75 | -0.39 (0.22) | -0.10 (0.19) | 0.30 | -0.29 |
| 17 | rs6845120 | TBC1D1 | 0.32 (0.18) | -0.12 (0.18) | 0.11 | 0.44 | 0.39 (0.51) | -0.44 (0.46) | 0.26 | 0.83 | -0.40 (0.24) | -0.16 (0.21) | 0.26 | -0.24 |
| 18 | rs6823014 | TBC1D1 | -0.33 (0.17) | -0.07 (0.17) | 0.29 | -0.27 | -0.35 (0.47) | -0.09 (0.42) | 0.67 | -0.26 | 0.47 (0.22) | 0.05 (0.19) | 0.67 | 0.42 |
| 19 | rs10009706 | TBC1D1 | 0.31 (0.19) | -0.15 (0.19) | 0.12 | 0.45 | 0.40 (0.52) | -0.37 (0.48) | 0.30 | 0.77 | -0.37 (0.24) | -0.04 (0.22) | 0.30 | -0.33 |
| 20 | rs2303422 | TBC1D1 | 0.30 (0.23) | -0.05 (0.23) | 0.21 | 0.35 | 0.51 (0.65) | -0.44 (0.57) | 0.19 | 0.95 | -0.23 (0.30) | -0.32 (0.26) | 0.19 | 0.09 |
| 21 | rs1344603 | TBC1D1 | -0.04 (0.18) | 0.06 (0.18) | 0.65 | -0.10 | 0.26 (0.51) | 0.15 (0.44) | 0.87 | 0.12 | 0.37 (0.24) | 0.02 (0.20) | 0.87 | 0.35 |
| 22 | rs637797 | TBC1D1 | 0.07 (0.18) | -0.52 (0.18) | 0.04 | 0.59 | -0.06 (0.51) | -1.18 (0.45) | 0.16 | 1.13 | -0.22 (0.24) | -0.04 (0.21) | 0.16 | -0.19 |
| 23 | rs6837834 | TBC1D1 | 0.11 (0.24) | 0.19 (0.26) | 0.97 | -0.08 | -0.10 (0.68) | 0.52 (0.65) | 0.66 | -0.63 | -0.38 (0.32) | 0.10 (0.30) | 0.66 | -0.48 |
| 24 | rs13110318 | TBC1D1 | -0.27 (0.30) | -0.11 (0.31) | 0.56 | -0.16 | -0.48 (0.86) | -0.45 (0.77) | 0.73 | -0.03 | 0.19 (0.40) | -0.20 (0.35) | 0.73 | 0.40 |
| 25 | rs3816873 | MTTP | -0.13 (0.19) | -0.02 (0.19) | 0.81 | -0.11 | -0.26 (0.53) | -0.01 (0.47) | 0.84 | -0.25 | 0.07 (0.25) | 0.04 (0.22) | 0.84 | 0.03 |
| 26 | rs1799883 | FABP2 | -0.10 (0.19) | -0.34 (0.19) | 0.29 | 0.24 | 0.07 (0.53) | -0.70 (0.48) | 0.22 | 0.76 | 0.32 (0.25) | 0.06 (0.22) | 0.22 | 0.26 |
| 27 | rs6857641 | FABP2 | -0.06 (0.16) | -0.26 (0.17) | 0.42 | 0.20 | -0.05 (0.46) | -0.69 (0.42) | 0.35 | 0.64 | 0.11 (0.21) | -0.11 (0.19) | 0.35 | 0.22 |
| 28 | rs13283456 | PTGES2 | -0.02 (0.22) | 0.24 (0.22) | 0.32 | -0.26 | 0.13 (0.61) | 0.55 (0.55) | 0.52 | -0.42 | 0.18 (0.28) | 0.01 (0.25) | 0.52 | 0.17 |
| 29 | rs7903146 | TCF7L2 | -0.09 (0.18) | -0.17 (0.19) | 0.86 | 0.08 | -0.06 (0.52) | -0.63 (0.48) | 0.40 | 0.57 | 0.17 (0.24) | -0.25 (0.22) | 0.40 | 0.42 |
| 30 | rs916829 | ABCC8 | -0.12 (0.22) | -0.33 (0.24) | 0.62 | 0.22 | -0.35 (0.62) | -0.40 (0.59) | 0.95 | 0.05 | -0.05 (0.29) | 0.34 (0.27) | 0.95 | -0.39 |
| 31 | rs916828 | ABCC8 | -0.02 (0.19) | -0.12 (0.19) | 0.97 | 0.10 | 0.25 (0.54) | -0.16 (0.47) | 0.81 | 0.41 | 0.30 (0.25) | 0.10 (0.21) | 0.81 | 0.20 |
| 32 | rs2237984 | ABCC8 | -0.17 (0.17) | 0.03 (0.17) | 0.37 | -0.20 | -0.66 (0.47) | -0.11 (0.42) | 0.36 | -0.56 | -0.23 (0.22) | -0.17 (0.19) | 0.36 | -0.07 |
| 33 | rs10832786 | ABCC8 | 0.08 (0.23) | 0.35 (0.24) | 0.52 | -0.26 | -0.18 (0.65) | 0.26 (0.59) | 0.70 | -0.45 | -0.39 (0.31) | -0.50 (0.27) | 0.70 | 0.11 |
| 34 | rs7106053 | ABCC8 | 0.11 (0.18) | -0.02 (0.17) | 0.65 | 0.12 | 0.26 (0.50) | -0.25 (0.43) | 0.46 | 0.51 | 0.00 (0.23) | -0.21 (0.20) | 0.46 | 0.21 |
| 35 | rs11024286 | ABCC8 | 0.03 (0.18) | -0.05 (0.18) | 0.78 | 0.08 | 0.24 (0.52) | -0.37 (0.44) | 0.39 | 0.60 | 0.16 (0.24) | -0.25 (0.20) | 0.39 | 0.41 |
| 36 | rs1520220 | IGF1 | 0.44 (0.21) | 0.21 (0.22) | 0.43 | 0.23 | 0.86 (0.60) | 0.74 (0.53) | 0.80 | 0.12 | -0.23 (0.28) | 0.28 (0.24) | 0.80 | -0.51 |
| 37 | rs9939609 | FTO | 0.56 (0.17) | 0.14 (0.17) | 0.12 | 0.41 | 1.55 (0.48) | 0.08 (0.43) | 0.03 | 1.46 | 0.16 (0.23) | -0.24 (0.20) | 0.03 | 0.40 |
| 38 | rs2297508 | SREBF1 | 0.19 (0.17) | 0.13 (0.17) | 0.66 | 0.06 | 0.58 (0.49) | 0.23 (0.43) | 0.50 | 0.35 | 0.11 (0.23) | -0.06 (0.19) | 0.50 | 0.17 |
| 39 | rs1805081 | NPC1 | -0.05 (0.17) | -0.02 (0.17) | 0.99 | -0.03 | -0.32 (0.48) | -0.08 (0.42) | 0.83 | -0.24 | -0.20 (0.23) | -0.04 (0.19) | 0.83 | -0.17 |
| 40 | rs17700144 | MC4R | 0.17 (0.20) | 0.60 (0.20) | 0.12 | -0.43 | 0.77 (0.57) | 1.44 (0.50) | 0.34 | -0.66 | 0.36 (0.27) | 0.11 (0.23) | 0.34 | 0.24 |
| 41 | rs10871777 | MC4R | 0.13 (0.19) | 0.51 (0.19) | 0.16 | -0.38 | 0.68 (0.54) | 1.16 (0.48) | 0.49 | -0.48 | 0.37 (0.25) | 0.04 (0.22) | 0.49 | 0.33 |

Multiple linear regression model for body mass index (BMI) and waist circumference (WC) based on adjustment for sex, age, education, occupational activity smoking, alcohol intake, energy intake, fat intake, and fruit and vegetable intake. SNPs are coded as 0, 1, 2 for minor allele count.