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## Table S1. Characteristics of SNPs used as instrumental variables for genetically predicted AAM.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNP | Effect allele | Other allele | EAF | Xka | σXkb | *P*-value | F-statistics |
| 1 | rs2344508 | A | G | 0.56 | 0.034 | 0.005747 | 3.30E-09 | 34.99828183 |
| 2 | rs466639 | C | T | 0.87 | 0.075 | 0.008706 | 7.00E-18 | 74.21661875 |
| 3 | rs618678 | T | C | 0.33 | -0.034 | 0.006148 | 3.20E-08 | 30.58231361 |
| 4 | rs633715 | C | T | 0.2 | -0.051 | 0.00725 | 2.00E-12 | 49.48394768 |
| 5 | rs6694738 | A | C | 0.18 | -0.044 | 0.007885 | 2.40E-08 | 31.14062281 |
| 6 | rs6747380 | A | G | 0.17 | 0.065 | 0.007658 | 2.10E-17 | 72.04821259 |
| 7 | rs6758290 | C | T | 0.51 | -0.04 | 0.006322 | 2.50E-10 | 40.0306958 |
| 8 | rs1518080 | G | C | 0.43 | -0.051 | 0.006004 | 2.00E-17 | 72.14463039 |
| 9 | rs4369815 | G | T | 0.05 | -0.08 | 0.011888 | 1.70E-11 | 45.28888279 |
| 10 | rs895526 | C | T | 0.8 | 0.044 | 0.007553 | 5.70E-09 | 33.93447105 |
| 11 | rs2947411 | G | A | 0.87 | -0.052 | 0.007655 | 1.10E-11 | 46.14170137 |
| 12 | rs2687729 | G | A | 0.23 | 0.044 | 0.006575 | 2.20E-11 | 44.78415736 |
| 13 | rs6770162 | A | G | 0.44 | 0.036 | 0.005733 | 3.40E-10 | 39.4302016 |
| 14 | rs3870341 | G | A | 0.69 | -0.043 | 0.006449 | 2.60E-11 | 44.45698801 |
| 15 | rs11715566 | T | C | 0.51 | 0.052 | 0.005631 | 2.60E-20 | 85.27227854 |
| 16 | rs3914188 | C | G | 0.74 | 0.044 | 0.006702 | 5.20E-11 | 43.1004942 |
| 17 | rs7642134 | G | A | 0.56 | 0.038 | 0.005912 | 1.30E-10 | 41.30851441 |
| 18 | rs17351680 | G | C | 0.13 | 0.044 | 0.007557 | 5.80E-09 | 33.90062132 |
| 19 | rs1482853 | A | C | 0.39 | -0.038 | 0.006043 | 3.20E-10 | 39.5485896 |
| 20 | rs10938397 | G | A | 0.43 | -0.038 | 0.005923 | 1.40E-10 | 41.16371137 |
| 21 | rs3733632 | G | A | 0.23 | 0.049 | 0.007862 | 4.60E-10 | 38.84004112 |
| 22 | rs9997604 | C | A | 0.7 | 0.039 | 0.006511 | 2.10E-09 | 35.87857266 |
| 23 | rs9647570 | G | T | 0.12 | 0.046 | 0.008427 | 4.80E-08 | 29.79595481 |
| 24 | rs740077 | C | A | 0.21 | -0.046 | 0.007045 | 6.60E-11 | 42.63400525 |
| 25 | rs13179411 | T | G | 0.16 | 0.06 | 0.007813 | 1.60E-14 | 58.97122796 |
| 26 | rs3115627 | G | A | 0.4 | 0.038 | 0.006453 | 3.90E-09 | 34.67299602 |
| 27 | rs13215865 | T | C | 0.15 | -0.042 | 0.007472 | 1.90E-08 | 31.59411941 |
| 28 | rs2153127 | C | T | 0.46 | -0.077 | 0.002077 | 1.00E-200 | 1373.869167 |
| 29 | rs4840086 | G | A | 0.48 | -0.036 | 0.00562 | 1.50E-10 | 41.0288266 |
| 30 | rs11756454 | A | T | 0.45 | 0.034 | 0.005703 | 2.50E-09 | 35.53901616 |
| 31 | rs2179786 | T | G | 0.32 | -0.039 | 0.00572 | 9.20E-12 | 46.49182974 |
| 32 | rs9373571 | A | T | 0.56 | 0.034 | 0.005926 | 9.60E-09 | 32.92063868 |
| 33 | rs2184968 | C | T | 0.41 | -0.036 | 0.005672 | 2.20E-10 | 40.28044631 |
| 34 | rs6933660 | A | C | 0.3 | -0.036 | 0.006331 | 1.30E-08 | 32.33131228 |
| 35 | rs1079866 | G | C | 0.12 | 0.072 | 0.008444 | 1.50E-17 | 72.71225827 |
| 36 | rs11767400 | A | C | 0.31 | 0.035 | 0.006295 | 2.70E-08 | 30.91196995 |
| 37 | rs7821178 | A | C | 0.41 | -0.045 | 0.006196 | 3.80E-13 | 52.74396456 |
| 38 | rs888345 | A | G | 0.82 | -0.044 | 0.007315 | 1.80E-09 | 36.17899564 |
| 39 | rs2617056 | T | A | 0.39 | -0.036 | 0.005933 | 1.30E-09 | 36.81332683 |
| 40 | rs4242496 | A | T | 0.5 | -0.033 | 0.005696 | 6.90E-09 | 33.56274094 |
| 41 | rs1516883 | A | G | 0.3 | -0.091 | 0.002455 | 1.00E-200 | 1373.877306 |
| 42 | rs913588 | A | G | 0.55 | -0.034 | 0.005683 | 2.20E-09 | 35.78794847 |
| 43 | rs12003641 | T | C | 0.07 | 0.082 | 0.010555 | 7.90E-15 | 60.36043713 |
| 44 | rs7853970 | C | T | 0.57 | -0.037 | 0.00626 | 3.40E-09 | 34.94010137 |
| 45 | rs1874984 | C | G | 0.44 | 0.037 | 0.006005 | 7.20E-10 | 37.96574175 |
| 46 | rs7103411 | T | C | 0.78 | -0.043 | 0.007056 | 1.10E-09 | 37.13905474 |
| 47 | rs7944630 | A | G | 0.57 | 0.047 | 0.005728 | 2.30E-16 | 67.32706727 |
| 48 | rs10840031 | A | G | 0.24 | 0.038 | 0.006406 | 3.00E-09 | 35.18383358 |
| 49 | rs12291726 | G | A | 0.11 | 0.057 | 0.008333 | 7.90E-12 | 46.79035378 |
| 50 | rs11022756 | C | A | 0.74 | -0.048 | 0.006481 | 1.30E-13 | 54.85139918 |
| 51 | rs16938437 | T | C | 0.05 | -0.067 | 0.010348 | 9.50E-11 | 41.92149532 |
| 52 | rs7119712 | A | G | 0.19 | -0.041 | 0.006445 | 2.00E-10 | 40.46668343 |
| 53 | rs9565073 | C | T | 0.52 | 0.034 | 0.005881 | 7.40E-09 | 33.4267287 |
| 54 | rs9555810 | G | C | 0.26 | 0.047 | 0.006492 | 4.50E-13 | 52.41183053 |
| 55 | rs10144321 | G | A | 0.22 | -0.042 | 0.006618 | 2.20E-10 | 40.28038545 |
| 56 | rs10483727 | C | T | 0.64 | -0.037 | 0.005785 | 1.60E-10 | 40.90267197 |
| 57 | rs12148769 | A | G | 0.12 | -0.055 | 0.009752 | 1.70E-08 | 31.81020705 |
| 58 | rs3743266 | C | T | 0.33 | -0.045 | 0.006233 | 5.20E-13 | 52.12784768 |
| 59 | rs12915845 | T | C | 0.42 | -0.035 | 0.005729 | 1.00E-09 | 37.32485713 |
| 60 | rs1659127 | A | G | 0.3 | 0.044 | 0.006372 | 5.00E-12 | 47.68701809 |
| 61 | rs12598642 | G | A | 0.44 | 0.044 | 0.005681 | 9.50E-15 | 59.99694907 |
| 62 | rs9939609 | A | T | 0.45 | -0.042 | 0.00572 | 2.10E-13 | 53.90896192 |
| 63 | rs9635759 | A | G | 0.33 | 0.058 | 0.006362 | 7.70E-20 | 83.12574655 |
| 64 | rs1398217 | C | G | 0.58 | 0.046 | 0.005767 | 1.50E-15 | 63.63162227 |
| 65 | rs2303100 | T | C | 0.55 | 0.038 | 0.005684 | 2.30E-11 | 44.69705617 |
| 66 | rs4801589 | G | C | 0.43 | 0.032 | 0.005628 | 1.30E-08 | 32.33137611 |
| 67 | rs852069 | G | A | 0.62 | 0.036 | 0.005907 | 1.10E-09 | 37.13897286 |
| 68 | rs2836950 | G | C | 0.32 | -0.035 | 0.006206 | 1.70E-08 | 31.81015113 |

SNPs: Single nucleotide polymorphisms; AAM: Age at menarche; EAF: Effect allele frequency; SE：Standard error. F-statistics= (Effect/SE)2

a Effect size per allele in AAM (in years)

b Standard error of the genetic association of each effect allele with genetically predicted AAM

Table S2. Genetic estimates for the association of genetically predicted AAM with genetically predicted MI.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Xka | σXkb | Yk c | σYk d |
| 1 | rs10144321 | G | -0.042 | 0.006618 | 0.008671 | 0.012078 |
| 2 | rs10483727 | C | -0.037 | 0.005785 | 0.020817 | 0.010598 |
| 3 | rs1079866 | G | 0.072 | 0.008444 | 0.010109 | 0.014712 |
| 4 | rs10840031 | A | 0.038 | 0.006406 | -0.00831 | 0.011034 |
| 5 | rs10938397 | G | -0.038 | 0.005923 | 0.022473 | 0.010345 |
| 6 | rs11022756 | C | -0.048 | 0.006481 | 0.034106 | 0.011348 |
| 7 | rs11715566 | T | 0.052 | 0.005631 | -0.01126 | 0.010206 |
| 8 | rs11756454 | A | 0.034 | 0.005703 | -0.01131 | 0.010182 |
| 9 | rs11767400 | A | 0.035 | 0.006295 | -0.00763 | 0.012338 |
| 10 | rs12003641 | T | 0.082 | 0.010555 | -0.01636 | 0.017105 |
| 11 | rs12148769 | A | -0.055 | 0.009752 | -0.01288 | 0.016633 |
| 12 | rs12291726 | G | 0.057 | 0.008333 | -0.03578 | 0.012923 |
| 13 | rs12598642 | G | 0.044 | 0.005681 | -0.02195 | 0.010668 |
| 14 | rs12915845 | T | -0.035 | 0.005729 | 0.003662 | 0.010614 |
| 15 | rs13179411 | T | 0.06 | 0.007813 | 0.007297 | 0.015377 |
| 16 | rs13215865 | T | -0.042 | 0.007472 | -0.00587 | 0.014387 |
| 17 | rs1398217 | C | 0.046 | 0.005767 | -0.00272 | 0.010282 |
| 18 | rs1482853 | A | -0.038 | 0.006043 | 0.01563 | 0.010696 |
| 19 | rs1516883 | A | -0.091 | 0.002455 | 0.003408 | 0.011156 |
| 20 | rs1518080 | G | -0.051 | 0.006004 | 0.010725 | 0.010587 |
| 21 | rs1659127 | A | 0.044 | 0.006372 | -0.00428 | 0.011338 |
| 22 | rs16938437 | T | -0.067 | 0.010348 | 0.023337 | 0.017954 |
| 23 | rs17351680 | G | 0.044 | 0.007557 | -0.03242 | 0.014302 |
| 24 | rs1874984 | C | 0.037 | 0.006005 | 0.006292 | 0.010634 |
| 25 | rs2153127 | C | -0.077 | 0.002077 | 0.016059 | 0.010489 |
| 26 | rs2179786 | T | -0.039 | 0.00572 | 0.007768 | 0.010325 |
| 27 | rs2184968 | C | -0.036 | 0.005672 | -0.03391 | 0.010648 |
| 28 | rs2303100 | T | 0.038 | 0.005684 | -0.00477 | 0.010467 |
| 29 | rs2344508 | A | 0.034 | 0.005747 | 0.004186 | 0.010372 |
| 30 | rs2617056 | T | -0.036 | 0.005933 | 0.004999 | 0.01142 |
| 31 | rs2687729 | G | 0.044 | 0.006575 | 0.015564 | 0.01143 |
| 32 | rs2836950 | G | -0.035 | 0.006206 | -0.01041 | 0.010699 |
| 33 | rs2947411 | G | -0.052 | 0.007655 | 0.008336 | 0.013304 |
| 34 | rs3733632 | G | 0.049 | 0.007862 | -0.00951 | 0.012618 |
| 35 | rs3743266 | C | -0.045 | 0.006233 | 0.014377 | 0.011535 |
| 36 | rs3870341 | G | -0.043 | 0.006449 | -0.01288 | 0.012718 |
| 37 | rs3914188 | C | 0.044 | 0.006702 | -0.00073 | 0.01171 |
| 38 | rs4242496 | A | -0.033 | 0.005696 | 0.016421 | 0.011176 |
| 39 | rs4369815 | G | -0.08 | 0.011888 | 0.033404 | 0.022874 |
| 40 | rs466639 | C | 0.075 | 0.008706 | 0.001761 | 0.014643 |
| 41 | rs4801589 | G | 0.032 | 0.005628 | 0.004878 | 0.010269 |
| 42 | rs4840086 | G | -0.036 | 0.00562 | 0.013269 | 0.010346 |
| 43 | rs618678 | T | -0.034 | 0.006148 | -0.00568 | 0.011329 |
| 44 | rs633715 | C | -0.051 | 0.00725 | 0.02877 | 0.012958 |
| 45 | rs6694738 | A | -0.044 | 0.007885 | -0.00683 | 0.013923 |
| 46 | rs6747380 | A | 0.065 | 0.007658 | 0.029116 | 0.013281 |
| 47 | rs6758290 | C | -0.04 | 0.006322 | 0.001158 | 0.010519 |
| 48 | rs6770162 | A | 0.036 | 0.005733 | 0.003953 | 0.01068 |
| 49 | rs6933660 | A | -0.036 | 0.006331 | -0.00471 | 0.010842 |
| 50 | rs7103411 | T | -0.043 | 0.007056 | 0.027164 | 0.012082 |
| 51 | rs7119712 | A | -0.041 | 0.006445 | 0.012709 | 0.012647 |
| 52 | rs740077 | C | -0.046 | 0.007045 | -0.00424 | 0.011868 |
| 53 | rs7642134 | G | 0.038 | 0.005912 | 0.008629 | 0.01044 |
| 54 | rs7821178 | A | -0.045 | 0.006196 | -0.01153 | 0.010597 |
| 55 | rs7853970 | C | -0.037 | 0.00626 | 0.020347 | 0.010659 |
| 56 | rs7944630 | A | 0.047 | 0.005728 | 0.011748 | 0.010472 |
| 57 | rs852069 | G | 0.036 | 0.005907 | -0.00617 | 0.010631 |
| 58 | rs888345 | A | -0.044 | 0.007315 | -0.01156 | 0.012805 |
| 59 | rs895526 | C | 0.044 | 0.007553 | -0.0089 | 0.01346 |
| 60 | rs913588 | A | -0.034 | 0.005683 | 0.013862 | 0.01038 |
| 61 | rs9373571 | A | 0.034 | 0.005926 | 0.008282 | 0.010637 |
| 62 | rs9555810 | G | 0.047 | 0.006492 | -0.00184 | 0.011521 |
| 63 | rs9565073 | C | 0.034 | 0.005881 | 0.008895 | 0.010603 |
| 64 | rs9635759 | A | 0.058 | 0.006362 | -0.01379 | 0.012186 |
| 65 | rs9647570 | G | 0.046 | 0.008427 | 0.017301 | 0.013834 |
| 66 | rs9939609 | A | -0.042 | 0.00572 | 0.024013 | 0.010729 |
| 67 | rs9997604 | C | 0.039 | 0.006511 | 0.022968 | 0.011822 |

AAM: Age at menarche; MI: Myocardial infarction; SNPs: Single nucleotide polymorphisms.

a Effect size per allele of SNPk (k=1,2,3…) in AAM (in years)

b Standard error of the genetic association of each effect allele with genetically predicted AAM

c Effect size per allele of SNPk (k=1,2,3…) in the log-odds or the log probability of MI

d Standard error of the genetic association of each effect allele with genetically predicted MI

Table S3. IVW MR analysis and sensitivity analyses for estimate of the association of genetically predicted AAM with genetically predicted MI.

|  |  |  |  |
| --- | --- | --- | --- |
| Method | OR | 95%CI | *p*-value |
| Simple median | 0.88 | 0.80-0.97 | 0.010 |
| Weighted median | 0.89 | 0.81-0.98 | 0.025 |
| MR Egger | 0.87 | 0.65-1.17 | 0.353 |
| MR Egger intercept | 0.002 | 0.007 | 0.779 |
| IVW MR analysis | 0.91 | 0.84-0.98 | 0.010 |
| Robust adjusted profile score | 0.90 | 0.83-0.98 | 0.013 |

IVW: Inverse variance weighted; MR: Mendelian randomization; AAM: Age at menarche; MI: Myocardial infarction; OR: Odds ratio; CI: Confidence interval;

## Table S4. Characteristics of SNPs used as instrumental variables for genetically-determined current smoking behavior.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNP | Effect allele | Other allele | EAF | Zka | σZkb | *P*-value | F-statistics |
| 1 | rs11210887 | A | G | 0.700334 | -0.00955 | 0.001441 | 3.46E-11 | 43.89903 |
| 2 | rs3773814 | C | A | 0.153285 | 0.010087 | 0.001838 | 4.04E-08 | 30.13051 |
| 3 | rs11096777 | C | T | 0.182487 | 0.009903 | 0.001713 | 7.37E-09 | 33.43698 |
| 4 | rs1549214 | C | T | 0.640579 | -0.00903 | 0.001378 | 5.62E-11 | 42.9501 |
| 5 | rs7726560 | T | G | 0.438569 | 0.007457 | 0.001333 | 2.20E-08 | 31.31223 |
| 6 | rs7807019 | G | A | 0.460379 | 0.007598 | 0.001327 | 1.03E-08 | 32.79024 |
| 7 | rs62474713 | A | G | 0.498591 | -0.00868 | 0.001324 | 5.60E-11 | 42.9596 |
| 8 | rs17730481 | A | G | 0.323033 | 0.008563 | 0.001422 | 1.71E-09 | 36.27694 |
| 9 | rs73227362 | C | A | 0.195714 | -0.00982 | 0.001665 | 3.67E-09 | 34.79314 |
| 10 | rs113382419 | A | C | 0.11211 | 0.021268 | 0.002099 | 4.00E-24 | 102.6664 |
| 11 | rs10891481 | G | A | 0.382581 | 0.008446 | 0.001363 | 5.82E-10 | 38.38346 |
| 12 | rs8033799 | C | A | 0.211359 | 0.008913 | 0.001622 | 3.90E-08 | 30.20126 |
| 13 | rs56113850 | C | T | 0.577736 | -0.01141 | 0.001337 | 1.37E-17 | 72.90358 |
| 14 | rs4809542 | G | C | 0.070307 | 0.015336 | 0.002593 | 3.32E-09 | 34.98634 |
| 15 | rs6062496 | A | G | 0.544683 | 0.007318 | 0.001326 | 3.39E-08 | 30.47388 |
| 16 | rs9607805 | T | C | 0.727753 | 0.009444 | 0.001489 | 2.26E-10 | 40.22853 |

SNP: Single nucleotide polymorphisms; EAF: Effect allele frequency; SE：Standard error. F-statistics= (Effect/SE)2

a Effect size of each allele on genetically-determined current smoking behavior (pack-years per allele)

b Standard error of the genetic association of each effect allele with genetically-determined current smoking behavior

## Table S5. Characteristics of SNPs used as instrumental variables for genetically-determined HbA1c.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNP | Effect allele | Other allele | EAF | Zka | σZkb | *P*-value | F-statistics |
| 1 | rs3927482 | G | T | 0.22404 | 0.12184 | 0.020197 | 1.62E-09 | 36.39201 |
| 2 | rs115340137 | C | T | 0.008882 | -0.60097 | 0.081779 | 2.01E-13 | 54.00351 |
| 3 | rs2487569 | T | A | 0.11067 | 0.15133 | 0.024673 | 8.60E-10 | 37.6189 |
| 4 | rs348330 | A | G | 0.63441 | -0.11927 | 0.015983 | 8.52E-14 | 55.68598 |
| 5 | rs9701805 | C | G | 0.089535 | -0.22065 | 0.026826 | 1.95E-16 | 67.6544 |
| 6 | rs7528296 | C | T | 0.3863 | -0.09937 | 0.015818 | 3.34E-10 | 39.46696 |
| 7 | rs1044145 | C | T | 0.54025 | 0.085473 | 0.015431 | 3.04E-08 | 30.68102 |
| 8 | rs7513688 | A | G | 0.36059 | 0.10972 | 0.016014 | 7.33E-12 | 46.94312 |
| 9 | rs34440965 | TA | T | 0.70607 | -0.13281 | 0.0171 | 8.09E-15 | 60.32111 |
| 10 | rs12136762 | G | A | 0.50348 | -0.09448 | 0.016457 | 9.40E-09 | 32.96143 |
| 11 | rs11204535 | G | A | 0.26676 | -0.10312 | 0.017401 | 3.11E-09 | 35.11862 |
| 12 | rs1175550 | G | A | 0.23081 | -0.17719 | 0.01848 | 9.04E-22 | 91.93365 |
| 13 | rs201886961 | T | C | 0.28077 | -0.11206 | 0.01727 | 8.68E-11 | 42.10334 |
| 14 | rs857721 | A | T | 0.26691 | 0.37763 | 0.017303 | 1.58E-105 | 476.3105 |
| 15 | rs11580608 | T | C | 0.31639 | 0.12292 | 0.016481 | 8.78E-14 | 55.62602 |
| 16 | rs198325 | T | C | 0.22163 | -0.12324 | 0.01847 | 2.52E-11 | 44.52148 |
| 17 | rs340882 | G | C | 0.62158 | 0.18618 | 0.015886 | 1.02E-31 | 137.3526 |
| 18 | rs560887 | C | T | 0.70132 | 0.40038 | 0.016716 | 1.14E-126 | 573.6936 |
| 19 | rs7572278 | A | T | 0.20375 | 0.11723 | 0.019068 | 7.86E-10 | 37.79786 |
| 20 | rs838717 | A | G | 0.56555 | 0.10064 | 0.0155 | 8.42E-11 | 42.15779 |
| 21 | rs72781658 | G | A | 0.13461 | 0.20186 | 0.022514 | 3.09E-19 | 80.38874 |
| 22 | rs780093 | C | T | 0.61816 | 0.15748 | 0.015777 | 1.85E-23 | 99.63271 |
| 23 | rs77981966 | T | C | 0.076555 | -0.36057 | 0.028944 | 1.30E-35 | 155.1894 |
| 24 | rs143667358 | T | TATACATACATAC | 0.19569 | 0.13058 | 0.019519 | 2.24E-11 | 44.75465 |
| 25 | rs6726007 | T | A | 0.46539 | -0.10831 | 0.015378 | 1.88E-12 | 49.60636 |
| 26 | rs4972439 | C | T | 0.22005 | -0.14035 | 0.018551 | 3.88E-14 | 57.23876 |
| 27 | rs45504994 | G | C | 0.46745 | -0.09728 | 0.015389 | 2.60E-10 | 39.95597 |
| 28 | rs13019832 | A | G | 0.41735 | -0.12765 | 0.015588 | 2.64E-16 | 67.05958 |
| 29 | rs2943640 | C | A | 0.6518 | 0.1491 | 0.016089 | 1.92E-20 | 85.88102 |
| 30 | rs1496653 | G | A | 0.20435 | -0.13138 | 0.019011 | 4.84E-12 | 47.75827 |
| 31 | rs113851927 | GT | G | 0.31224 | 0.16937 | 0.016665 | 2.92E-24 | 103.291 |
| 32 | rs10865977 | T | C | 0.62465 | -0.08881 | 0.015835 | 2.04E-08 | 31.45343 |
| 33 | rs11708067 | G | A | 0.24549 | -0.26157 | 0.01782 | 9.22E-49 | 215.4569 |
| 34 | rs1981767 | A | G | 0.2775 | 0.095852 | 0.017197 | 2.50E-08 | 31.06683 |
| 35 | rs6777684 | G | A | 0.60967 | 0.13445 | 0.01579 | 1.68E-17 | 72.50323 |
| 36 | rs9826367 | G | A | 0.44872 | -0.17191 | 0.015431 | 8.01E-29 | 124.1121 |
| 37 | rs6785881 | T | C | 0.4812 | -0.10646 | 0.015374 | 4.38E-12 | 47.95117 |
| 38 | rs1905505 | A | G | 0.28363 | -0.19336 | 0.017013 | 6.31E-30 | 129.1729 |
| 39 | rs13063578 | A | T | 0.40027 | 0.10195 | 0.015652 | 7.36E-11 | 42.42626 |
| 40 | rs6784925 | T | C | 0.55167 | -0.0934 | 0.015409 | 1.35E-09 | 36.74048 |
| 41 | rs9866749 | T | A | 0.70539 | 0.1395 | 0.017252 | 6.20E-16 | 65.3837 |
| 42 | rs4611812 | T | C | 0.40428 | -0.0987 | 0.015682 | 3.10E-10 | 39.61162 |
| 43 | rs12497133 | A | G | 0.53317 | 0.098225 | 0.015458 | 2.09E-10 | 40.37732 |
| 44 | rs56330132 | CTCA | C | 0.18642 | 0.14506 | 0.019847 | 2.70E-13 | 53.42021 |
| 45 | rs12633493 | T | C | 0.58662 | 0.11715 | 0.015626 | 6.54E-14 | 56.20681 |
| 46 | rs4689394 | G | C | 0.59864 | 0.14488 | 0.015673 | 2.39E-20 | 85.45011 |
| 47 | rs28690107 | C | G | 0.70867 | -0.1245 | 0.018514 | 1.76E-11 | 45.22079 |
| 48 | rs4698874 | C | T | 0.48539 | -0.10502 | 0.015359 | 8.05E-12 | 46.75393 |
| 49 | rs28504375 | A | T | 0.63745 | -0.23087 | 0.016693 | 1.72E-43 | 191.2785 |
| 50 | rs34835465 | C | T | 0.070365 | -0.17232 | 0.030144 | 1.09E-08 | 32.67906 |
| 51 | rs146302237 | AT | A | 0.13331 | -0.17036 | 0.022956 | 1.16E-13 | 55.07352 |
| 52 | rs6878122 | A | G | 0.68018 | -0.13225 | 0.016459 | 9.39E-16 | 64.56311 |
| 53 | rs6885132 | G | C | 0.099832 | -0.18425 | 0.025997 | 1.37E-12 | 50.23062 |
| 54 | rs145762933 | A | G | 0.050019 | 0.21073 | 0.035389 | 2.61E-09 | 35.45816 |
| 55 | rs7720275 | C | T | 0.17005 | 0.12178 | 0.02043 | 2.51E-09 | 35.53164 |
| 56 | rs67131976 | T | C | 0.17231 | 0.28395 | 0.020297 | 1.86E-44 | 195.7132 |
| 57 | rs998584 | A | C | 0.48165 | 0.12424 | 0.015384 | 6.73E-16 | 65.22053 |
| 58 | rs12210538 | G | A | 0.23618 | -0.12788 | 0.018075 | 1.50E-12 | 50.05514 |
| 59 | rs6920313 | C | T | 0.30591 | 0.095312 | 0.016651 | 1.04E-08 | 32.76533 |
| 60 | rs9258357 | C | T | 0.83632 | 0.16138 | 0.020723 | 6.84E-15 | 60.64488 |
| 61 | rs9264277 | C | T | 0.63199 | 0.15204 | 0.015963 | 1.67E-21 | 90.71659 |
| 62 | rs1131114 | C | T | 0.2651 | 0.19015 | 0.017397 | 8.39E-28 | 119.4659 |
| 63 | rs9273363 | A | C | 0.30378 | 0.289 | 0.016685 | 3.53E-67 | 300.0152 |
| 64 | rs11759026 | G | A | 0.22712 | 0.13598 | 0.01838 | 1.38E-13 | 54.73424 |
| 65 | rs62440928 | A | G | 0.60464 | -0.11048 | 0.015875 | 3.42E-12 | 48.43283 |
| 66 | rs78588343 | A | G | 0.17915 | -0.1647 | 0.020022 | 1.94E-16 | 67.66628 |
| 67 | rs1800562 | A | G | 0.078843 | -0.5108 | 0.028482 | 6.90E-72 | 321.6332 |
| 68 | rs6901903 | C | T | 0.27105 | 0.16167 | 0.017719 | 7.27E-20 | 83.24928 |
| 69 | rs9376091 | T | C | 0.26036 | -0.17628 | 0.01755 | 9.77E-24 | 100.8909 |
| 70 | rs376563 | C | T | 0.53313 | 0.096419 | 0.01539 | 3.73E-10 | 39.25075 |
| 71 | rs60238952 | G | A | 0.21923 | -0.10404 | 0.018626 | 2.33E-08 | 31.2005 |
| 72 | rs76323047 | G | A | 0.11843 | 0.17521 | 0.023796 | 1.81E-13 | 54.2138 |
| 73 | rs34518086 | CT | C | 0.53976 | -0.09224 | 0.015626 | 3.58E-09 | 34.84218 |
| 74 | rs17168486 | T | C | 0.17349 | 0.16157 | 0.020347 | 2.01E-15 | 63.05517 |
| 75 | rs10487796 | A | T | 0.45053 | -0.16103 | 0.015411 | 1.49E-25 | 109.1822 |
| 76 | rs76702117 | G | A | 0.040151 | 0.2271 | 0.039114 | 6.40E-09 | 33.71086 |
| 77 | rs1708302 | T | C | 0.50097 | -0.15899 | 0.015348 | 3.83E-25 | 107.309 |
| 78 | rs1004558 | T | C | 0.17898 | 0.44709 | 0.020003 | 1.39E-110 | 499.5738 |
| 79 | rs6953344 | G | A | 0.24663 | 0.10983 | 0.017821 | 7.16E-10 | 37.982 |
| 80 | rs5888710 | CT | C | 0.34724 | -0.10772 | 0.016104 | 2.25E-11 | 44.74301 |
| 81 | rs12668254 | G | A | 0.079671 | -0.20599 | 0.028435 | 4.35E-13 | 52.47903 |
| 82 | rs77258375 | CT | C | 0.36037 | 0.12124 | 0.01614 | 5.85E-14 | 56.42672 |
| 83 | rs2737263 | T | G | 0.28427 | -0.11708 | 0.01701 | 5.87E-12 | 47.37583 |
| 84 | rs35859536 | T | C | 0.31344 | -0.2774 | 0.01656 | 5.85E-63 | 280.603 |
| 85 | rs2954021 | G | A | 0.50565 | 0.095504 | 0.015352 | 4.95E-10 | 38.7002 |
| 86 | rs66593272 | T | A | 0.037563 | -0.54055 | 0.040328 | 5.88E-41 | 179.6629 |
| 87 | rs4977200 | G | A | 0.61379 | -0.09701 | 0.015963 | 1.22E-09 | 36.93286 |
| 88 | rs7820334 | T | C | 0.31109 | -0.10923 | 0.016643 | 5.28E-11 | 43.07454 |
| 89 | rs4737010 | A | G | 0.22802 | 0.33164 | 0.018313 | 2.90E-73 | 327.9554 |
| 90 | rs73565707 | G | A | 0.16528 | -0.1499 | 0.020641 | 3.82E-13 | 52.7402 |
| 91 | rs35467189 | CT | C | 0.69364 | 0.094866 | 0.016751 | 1.49E-08 | 32.07301 |
| 92 | rs61750929 | T | C | 0.055145 | -0.43693 | 0.033677 | 1.75E-38 | 168.3282 |
| 93 | rs10733564 | G | T | 0.86481 | -0.12746 | 0.022684 | 1.92E-08 | 31.57247 |
| 94 | rs10811660 | A | G | 0.17332 | -0.30869 | 0.020265 | 2.25E-52 | 232.0341 |
| 95 | rs1929915 | A | G | 0.2095 | 0.14594 | 0.018823 | 8.99E-15 | 60.11336 |
| 96 | rs550057 | T | C | 0.25461 | 0.23038 | 0.017649 | 6.22E-39 | 170.3921 |
| 97 | rs28641468 | C | T | 0.75584 | 0.17046 | 0.017815 | 1.09E-21 | 91.55315 |
| 98 | rs1574285 | T | G | 0.60147 | -0.09232 | 0.01569 | 4.02E-09 | 34.61924 |
| 99 | rs10758658 | A | G | 0.19951 | -0.13066 | 0.019186 | 9.77E-12 | 46.37847 |
| 100 | rs2796441 | A | G | 0.42001 | -0.09636 | 0.015513 | 5.25E-10 | 38.58433 |
| 101 | rs2002905 | A | C | 0.22518 | 0.1819 | 0.018426 | 5.56E-23 | 97.45481 |
| 102 | rs34872471 | C | T | 0.29127 | 0.47526 | 0.016882 | 3.61E-174 | 792.5282 |
| 103 | rs142196758 | A | G | 0.014002 | -1.2439 | 0.068451 | 9.35E-74 | 330.2261 |
| 104 | rs7077479 | A | C | 0.33125 | 0.10373 | 0.016555 | 3.71E-10 | 39.26001 |
| 105 | rs11257655 | T | C | 0.20825 | 0.21882 | 0.018898 | 5.32E-31 | 134.0733 |
| 106 | rs4745982 | G | T | 0.079637 | -1.0375 | 0.029209 | 1.00E-200 | 1261.661 |
| 107 | rs7898054 | T | C | 0.38032 | -0.18945 | 0.015808 | 4.35E-33 | 143.6268 |
| 108 | rs61850681 | A | G | 0.23828 | -0.16614 | 0.018084 | 4.06E-20 | 84.4033 |
| 109 | rs555895 | G | T | 0.35197 | 0.10458 | 0.016063 | 7.49E-11 | 42.3881 |
| 110 | rs2305196 | A | G | 0.2647 | -0.15241 | 0.017432 | 2.28E-18 | 76.44208 |
| 111 | rs12419995 | T | A | 0.63117 | -0.1227 | 0.016956 | 4.63E-13 | 52.36514 |
| 112 | rs2237895 | C | A | 0.41525 | 0.17623 | 0.015527 | 7.51E-30 | 128.8204 |
| 113 | rs147208676 | T | C | 0.081564 | 0.15993 | 0.028231 | 1.47E-08 | 32.09278 |
| 114 | rs174549 | A | G | 0.30997 | -0.10537 | 0.016576 | 2.06E-10 | 40.40866 |
| 115 | rs3020069 | A | G | 0.68286 | 0.093396 | 0.01649 | 1.48E-08 | 32.07859 |
| 116 | rs7105853 | A | G | 0.12674 | 0.13366 | 0.023019 | 6.39E-09 | 33.71553 |
| 117 | rs7124355 | G | A | 0.67508 | -0.1 | 0.016451 | 1.21E-09 | 36.94786 |
| 118 | rs11039165 | G | A | 0.27103 | -0.13326 | 0.017253 | 1.13E-14 | 59.65823 |
| 119 | rs11602873 | T | A | 0.15759 | -0.18717 | 0.021037 | 5.76E-19 | 79.15983 |
| 120 | rs10830963 | G | C | 0.27517 | 0.29735 | 0.017141 | 2.22E-67 | 300.9287 |
| 121 | rs12365580 | A | G | 0.15047 | -0.12988 | 0.021566 | 1.72E-09 | 36.26982 |
| 122 | rs415895 | G | C | 0.64515 | -0.13765 | 0.016036 | 9.21E-18 | 73.68182 |
| 123 | rs1787663 | A | C | 0.29016 | 0.10095 | 0.016889 | 2.27E-09 | 35.72768 |
| 124 | rs4760682 | A | C | 0.81301 | 0.3561 | 0.019665 | 2.95E-73 | 327.911 |
| 125 | rs2258238 | T | A | 0.10482 | 0.19058 | 0.025119 | 3.28E-14 | 57.56387 |
| 126 | rs76895963 | G | T | 0.021026 | -1.0374 | 0.058949 | 2.76E-69 | 309.6989 |
| 127 | rs10842987 | C | A | 0.20089 | -0.1624 | 0.019136 | 2.13E-17 | 72.02275 |
| 128 | rs10784889 | T | C | 0.58987 | -0.08716 | 0.015611 | 2.36E-08 | 31.17474 |
| 129 | rs77530740 | T | A | 0.058589 | -0.1937 | 0.032747 | 3.32E-09 | 34.98777 |
| 130 | rs73226260 | A | G | 0.034445 | -0.23455 | 0.042635 | 3.77E-08 | 30.26484 |
| 131 | rs117709065 | T | C | 0.017646 | -0.37667 | 0.060928 | 6.33E-10 | 38.21978 |
| 132 | rs4238013 | T | C | 0.79599 | -0.11913 | 0.01927 | 6.33E-10 | 38.21896 |
| 133 | rs11065979 | T | C | 0.43738 | -0.10915 | 0.015494 | 1.86E-12 | 49.62727 |
| 134 | rs1215468 | G | A | 0.29294 | -0.13265 | 0.016939 | 4.85E-15 | 61.3252 |
| 135 | rs12876143 | C | T | 0.088704 | 0.34765 | 0.026984 | 5.68E-38 | 165.9861 |
| 136 | rs8000868 | T | C | 0.15829 | 0.16963 | 0.020974 | 6.10E-16 | 65.4098 |
| 137 | rs368865 | G | A | 0.72505 | 0.1045 | 0.017151 | 1.11E-09 | 37.12391 |
| 138 | rs8002606 | G | C | 0.16767 | 0.17541 | 0.020599 | 1.66E-17 | 72.51309 |
| 139 | rs6602900 | G | C | 0.2209 | -0.16892 | 0.018688 | 1.59E-19 | 81.70272 |
| 140 | rs229587 | T | C | 0.32452 | 0.12193 | 0.016377 | 9.70E-14 | 55.43097 |
| 141 | rs4905989 | A | G | 0.8373 | -0.14001 | 0.020779 | 1.61E-11 | 45.40136 |
| 142 | rs72681698 | C | T | 0.011004 | -0.41066 | 0.073465 | 2.27E-08 | 31.24668 |
| 143 | rs10873398 | A | G | 0.64641 | -0.09381 | 0.016088 | 5.52E-09 | 33.99829 |
| 144 | rs7151822 | C | T | 0.24754 | -0.15893 | 0.017827 | 4.90E-19 | 79.47952 |
| 145 | rs4516170 | C | T | 0.04993 | -0.26401 | 0.035198 | 6.36E-14 | 56.26065 |
| 146 | rs12912009 | A | G | 0.72643 | -0.14568 | 0.017227 | 2.77E-17 | 71.51227 |
| 147 | rs34715063 | C | T | 0.1297 | 0.132 | 0.02295 | 8.84E-09 | 33.08129 |
| 148 | rs1550026 | T | A | 0.40767 | 0.10777 | 0.015667 | 6.04E-12 | 47.31775 |
| 149 | rs12910361 | G | A | 0.71349 | 0.1614 | 0.016961 | 1.81E-21 | 90.55327 |
| 150 | rs72802358 | C | G | 0.10168 | -0.15063 | 0.025538 | 3.68E-09 | 34.78958 |
| 151 | rs2925979 | C | T | 0.6991 | -0.11956 | 0.016725 | 8.80E-13 | 51.1022 |
| 152 | rs7193384 | G | C | 0.18126 | -0.15264 | 0.019983 | 2.21E-14 | 58.34657 |
| 153 | rs1121980 | A | G | 0.42204 | 0.15492 | 0.015526 | 1.92E-23 | 99.5625 |
| 154 | rs4889490 | T | G | 0.39039 | -0.09002 | 0.015729 | 1.05E-08 | 32.75414 |
| 155 | rs551118 | G | C | 0.57809 | 0.22727 | 0.015781 | 5.20E-47 | 207.4031 |
| 156 | rs181204 | G | A | 0.33299 | 0.11418 | 0.016399 | 3.35E-12 | 48.47807 |
| 157 | rs8050500 | C | T | 0.44602 | -0.11337 | 0.015435 | 2.06E-13 | 53.94895 |
| 158 | rs7196917 | G | A | 0.43176 | 0.095553 | 0.015504 | 7.13E-10 | 37.98404 |
| 159 | rs12448999 | A | T | 0.57972 | -0.08609 | 0.01556 | 3.16E-08 | 30.60877 |
| 160 | rs9901806 | T | C | 0.58304 | -0.08609 | 0.01568 | 4.02E-08 | 30.14136 |
| 161 | rs594398 | C | G | 0.51943 | 0.086064 | 0.015375 | 2.18E-08 | 31.33378 |
| 162 | rs3834968 | AG | A | 0.2224 | 0.31649 | 0.0186 | 6.64E-65 | 289.5304 |
| 163 | rs8068844 | C | T | 0.34071 | 0.097508 | 0.016183 | 1.69E-09 | 36.30466 |
| 164 | rs371297493 | AT | A | 0.47101 | -0.09051 | 0.015826 | 1.07E-08 | 32.70848 |
| 165 | rs10908278 | A | T | 0.51534 | -0.12471 | 0.01543 | 6.38E-16 | 65.32369 |
| 166 | rs10853047 | C | T | 0.14524 | 0.13064 | 0.021923 | 2.54E-09 | 35.51014 |
| 167 | rs12451511 | G | T | 0.19536 | 0.10704 | 0.019364 | 3.24E-08 | 30.55639 |
| 168 | rs2263122 | G | T | 0.53736 | -0.27571 | 0.015386 | 9.01E-72 | 321.1098 |
| 169 | rs7206953 | C | T | 0.7368 | -0.1082 | 0.017398 | 5.01E-10 | 38.67728 |
| 170 | rs12602109 | A | G | 0.23551 | -0.15085 | 0.018779 | 9.54E-16 | 64.52763 |
| 171 | rs12600858 | A | G | 0.22395 | -0.1311 | 0.01843 | 1.13E-12 | 50.60049 |
| 172 | rs1641523 | T | C | 0.56645 | -0.12694 | 0.015571 | 3.58E-16 | 66.46056 |
| 173 | rs9900803 | T | C | 0.69138 | -0.16892 | 0.016657 | 3.67E-24 | 102.8415 |
| 174 | rs1995138 | A | G | 0.075947 | 0.17294 | 0.028937 | 2.28E-09 | 35.71773 |
| 175 | rs56397034 | C | G | 0.39134 | -0.11569 | 0.015683 | 1.63E-13 | 54.41684 |
| 176 | rs33978622 | C | G | 0.33313 | -0.11579 | 0.016391 | 1.62E-12 | 49.90352 |
| 177 | rs75372982 | G | A | 0.28732 | -0.10827 | 0.017165 | 2.84E-10 | 39.78585 |
| 178 | rs34358015 | TA | T | 0.70595 | 0.10535 | 0.017024 | 6.10E-10 | 38.29533 |
| 179 | rs12984096 | C | G | 0.39175 | 0.21315 | 0.015735 | 8.54E-42 | 183.5005 |
| 180 | rs7507912 | A | G | 0.41897 | -0.13184 | 0.015743 | 5.57E-17 | 70.13251 |
| 181 | rs55966194 | G | C | 0.28404 | -0.13601 | 0.017023 | 1.36E-15 | 63.83656 |
| 182 | rs4809556 | A | G | 0.59545 | -0.08715 | 0.015637 | 2.50E-08 | 31.06189 |
| 183 | rs67897819 | A | G | 0.21621 | 0.10557 | 0.019365 | 5.00E-08 | 29.71981 |
| 184 | rs1883932 | T | A | 0.50792 | -0.10275 | 0.015364 | 2.27E-11 | 44.72549 |
| 185 | rs6014993 | G | A | 0.48674 | 0.10483 | 0.015391 | 9.71E-12 | 46.3914 |
| 186 | rs13042148 | T | C | 0.15498 | 0.11857 | 0.021217 | 2.30E-08 | 31.2307 |
| 187 | rs6518681 | G | A | 0.907019 | 0.14997 | 0.026571 | 1.66E-08 | 31.85613 |
| 188 | rs855791 | G | A | 0.56146 | -0.25462 | 0.015509 | 1.51E-60 | 269.5364 |
| 189 | rs117721418 | T | C | 0.081009 | -0.1915 | 0.028111 | 9.62E-12 | 46.40716 |
| 190 | rs2143918 | C | A | 0.471 | -0.12093 | 0.015384 | 3.82E-15 | 61.79162 |

SNP: Single nucleotide polymorphisms; HbA1c: Hemoglobin A1c; EAF: Effect allele frequency; SE：Standard error. F-statistics= (Effect/SE)2

a Effect size of each allele on genetically-determined HbA1c (percentage point per allele)

b Standard error of the genetic association of each effect allele with genetically-determined HbA1c

## Table S6. Characteristics of SNPs used as instrumental variables for genetically-determined SBP.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNP | Effect allele | Other allele | EAF | Zka | σZkb | *P*-value | F-statistics |
| 1 | rs2076328 | T | G | 0.500298 | -0.01405 | 0.002466 | 1.23E-08 | 32.44634 |
| 2 | rs2493296 | T | C | 0.137053 | 0.024408 | 0.003582 | 9.49E-12 | 46.43506 |
| 3 | rs3790604 | A | C | 0.073854 | 0.036549 | 0.004712 | 8.71E-15 | 60.17368 |
| 4 | rs4639796 | A | G | 0.159456 | 0.019328 | 0.003356 | 8.44E-09 | 33.17242 |
| 5 | rs2004776 | T | C | 0.240432 | 0.019916 | 0.002882 | 4.82E-12 | 47.76274 |
| 6 | rs17535443 | A | G | 0.27653 | -0.02169 | 0.002754 | 3.41E-15 | 62.02279 |
| 7 | rs71654213 | T | C | 0.38459 | -0.01713 | 0.002554 | 1.99E-11 | 44.9861 |
| 8 | rs786910 | G | C | 0.588893 | -0.01633 | 0.002499 | 6.27E-11 | 42.73826 |
| 9 | rs6690557 | G | T | 0.284079 | -0.01511 | 0.002728 | 3.03E-08 | 30.68818 |
| 10 | rs488834 | T | C | 0.766564 | -0.01687 | 0.002904 | 6.24E-09 | 33.75911 |
| 11 | rs55857306 | A | G | 0.163974 | -0.04376 | 0.003323 | 1.39E-39 | 173.3658 |
| 12 | rs35479618 | A | G | 0.01735 | 0.069691 | 0.009386 | 1.13E-13 | 55.12609 |
| 13 | rs6732308 | G | A | 0.208384 | -0.01823 | 0.003046 | 2.18E-09 | 35.80692 |
| 14 | rs12694861 | A | G | 0.604693 | 0.013713 | 0.002511 | 4.76E-08 | 29.81544 |
| 15 | rs116734066 | T | C | 0.092508 | -0.02785 | 0.004265 | 6.59E-11 | 42.63992 |
| 16 | rs6734118 | A | C | 0.2163 | -0.01896 | 0.002993 | 2.40E-10 | 40.11536 |
| 17 | rs268263 | A | T | 0.75424 | 0.030114 | 0.002881 | 1.46E-25 | 109.2269 |
| 18 | rs1250259 | A | T | 0.735684 | -0.01885 | 0.002795 | 1.57E-11 | 45.45145 |
| 19 | rs17759661 | A | C | 0.498101 | 0.017636 | 0.002461 | 7.66E-13 | 51.3721 |
| 20 | rs6733889 | C | T | 0.623065 | -0.01505 | 0.002537 | 2.99E-09 | 35.19233 |
| 21 | rs2249105 | G | A | 0.361063 | -0.01803 | 0.002555 | 1.68E-12 | 49.82712 |
| 22 | rs1438898 | C | A | 0.251051 | 0.015766 | 0.002848 | 3.10E-08 | 30.64645 |
| 23 | rs1047891 | A | C | 0.315673 | -0.01612 | 0.002646 | 1.10E-09 | 37.13434 |
| 24 | rs79349366 | T | C | 0.032519 | -0.04076 | 0.006998 | 5.74E-09 | 33.92163 |
| 25 | rs6544667 | T | C | 0.383035 | -0.01393 | 0.002532 | 3.82E-08 | 30.23923 |
| 26 | rs1530558 | C | T | 0.136004 | -0.02269 | 0.003587 | 2.54E-10 | 39.99987 |
| 27 | rs2892796 | A | G | 0.077703 | -0.027 | 0.0046 | 4.36E-09 | 34.45899 |
| 28 | rs12714414 | C | T | 0.160321 | -0.01966 | 0.00356 | 3.36E-08 | 30.4895 |
| 29 | rs35021474 | G | C | 0.617081 | -0.0224 | 0.002536 | 1.03E-18 | 78.01076 |
| 30 | rs13016772 | T | C | 0.761577 | 0.016147 | 0.002892 | 2.37E-08 | 31.16434 |
| 31 | rs34727427 | C | T | 0.318561 | 0.01478 | 0.00264 | 2.16E-08 | 31.34359 |
| 32 | rs6768542 | A | G | 0.158366 | -0.02054 | 0.003395 | 1.45E-09 | 36.60471 |
| 33 | rs3796205 | C | G | 0.351128 | -0.01726 | 0.002585 | 2.46E-11 | 44.56798 |
| 34 | rs3817581 | T | C | 0.493028 | 0.018524 | 0.002463 | 5.44E-14 | 56.57082 |
| 35 | rs2447607 | T | C | 0.617609 | 0.017354 | 0.002538 | 8.01E-12 | 46.76546 |
| 36 | rs2643826 | T | C | 0.4525 | 0.015996 | 0.002477 | 1.07E-10 | 41.69042 |
| 37 | rs743395 | T | C | 0.374686 | 0.014613 | 0.002585 | 1.58E-08 | 31.95321 |
| 38 | rs35593046 | T | G | 0.269679 | -0.01635 | 0.002814 | 6.23E-09 | 33.76258 |
| 39 | rs262986 | A | G | 0.467816 | -0.01377 | 0.002477 | 2.68E-08 | 30.92449 |
| 40 | rs17011002 | G | C | 0.1407 | 0.028501 | 0.003551 | 1.02E-15 | 64.40123 |
| 41 | rs1229984 | C | T | 0.977549 | 0.05189 | 0.008257 | 3.29E-10 | 39.49426 |
| 42 | rs73098804 | A | T | 0.129962 | 0.021141 | 0.003688 | 9.87E-09 | 32.86837 |
| 43 | rs7439366 | C | T | 0.454524 | 0.015315 | 0.002469 | 5.52E-10 | 38.48802 |
| 44 | rs10857147 | T | A | 0.292191 | 0.037123 | 0.002713 | 1.35E-42 | 187.1751 |
| 45 | rs4835266 | C | T | 0.483575 | -0.01481 | 0.0025 | 3.13E-09 | 35.10125 |
| 46 | rs10029530 | T | A | 0.658635 | -0.01903 | 0.002597 | 2.40E-13 | 53.65332 |
| 47 | rs231708 | C | G | 0.686651 | -0.01476 | 0.00265 | 2.55E-08 | 31.02675 |
| 48 | rs28667801 | T | A | 0.406256 | 0.013983 | 0.002515 | 2.72E-08 | 30.902 |
| 49 | rs2102397 | C | A | 0.498839 | -0.0178 | 0.002464 | 5.09E-13 | 52.17626 |
| 50 | rs12656497 | C | T | 0.596357 | 0.031728 | 0.002508 | 1.11E-36 | 160.0804 |
| 51 | rs158172 | G | A | 0.219112 | -0.01743 | 0.002974 | 4.60E-09 | 34.35333 |
| 52 | rs17056301 | C | T | 0.254256 | 0.018768 | 0.002833 | 3.46E-11 | 43.89964 |
| 53 | rs62368019 | C | T | 0.290266 | 0.015966 | 0.002714 | 4.04E-09 | 34.60784 |
| 54 | rs709668 | G | A | 0.797922 | 0.01783 | 0.003072 | 6.49E-09 | 33.68293 |
| 55 | rs17677603 | G | A | 0.394587 | 0.017989 | 0.002528 | 1.12E-12 | 50.62139 |
| 56 | rs13154549 | G | A | 0.067583 | 0.030453 | 0.004909 | 5.51E-10 | 38.49054 |
| 57 | rs1644318 | C | T | 0.384598 | 0.019146 | 0.002539 | 4.63E-14 | 56.88641 |
| 58 | rs13436194 | G | A | 0.425995 | -0.01855 | 0.002486 | 8.49E-14 | 55.69459 |
| 59 | rs6911827 | T | C | 0.454272 | 0.014685 | 0.00247 | 2.76E-09 | 35.34684 |
| 60 | rs1925148 | G | A | 0.560365 | -0.01397 | 0.00248 | 1.78E-08 | 31.72635 |
| 61 | rs2971608 | C | T | 0.221343 | 0.020858 | 0.002975 | 2.35E-12 | 49.16788 |
| 62 | rs210630 | G | A | 0.500672 | -0.01553 | 0.002462 | 2.85E-10 | 39.77789 |
| 63 | rs62434129 | T | A | 0.071464 | -0.03048 | 0.004781 | 1.82E-10 | 40.65279 |
| 64 | rs9385405 | C | G | 0.435707 | 0.022515 | 0.002475 | 9.43E-20 | 82.73681 |
| 65 | rs9349379 | G | A | 0.404893 | -0.01381 | 0.002505 | 3.55E-08 | 30.38506 |
| 66 | rs75391241 | G | A | 0.072076 | 0.028158 | 0.004761 | 3.33E-09 | 34.9801 |
| 67 | rs9294987 | C | T | 0.502206 | 0.013856 | 0.002479 | 2.29E-08 | 31.23559 |
| 68 | rs1052486 | G | A | 0.474786 | 0.019453 | 0.002463 | 2.88E-15 | 62.35602 |
| 69 | rs9476307 | G | A | 0.410838 | -0.0144 | 0.002503 | 8.75E-09 | 33.103 |
| 70 | rs7753358 | A | T | 0.487051 | 0.014439 | 0.002503 | 7.97E-09 | 33.2856 |
| 71 | rs7765526 | G | A | 0.541864 | -0.01419 | 0.002496 | 1.30E-08 | 32.33882 |
| 72 | rs57301765 | A | G | 0.154163 | 0.024666 | 0.00339 | 3.45E-13 | 52.93926 |
| 73 | rs6461992 | G | A | 0.926979 | 0.035501 | 0.00473 | 6.16E-14 | 56.32526 |
| 74 | rs10269774 | A | G | 0.323543 | -0.02078 | 0.002631 | 2.85E-15 | 62.37556 |
| 75 | rs62481856 | A | G | 0.196947 | 0.043879 | 0.00309 | 9.56E-46 | 201.6194 |
| 76 | rs17173238 | G | A | 0.28611 | 0.015442 | 0.002721 | 1.38E-08 | 32.21408 |
| 77 | rs2721800 | C | G | 0.180727 | -0.01812 | 0.003224 | 1.90E-08 | 31.59634 |
| 78 | rs1543270 | T | C | 0.455016 | -0.01586 | 0.002475 | 1.47E-10 | 41.06791 |
| 79 | rs7798991 | C | T | 0.262473 | 0.0157 | 0.002799 | 2.03E-08 | 31.46827 |
| 80 | rs891511 | A | G | 0.319374 | -0.01797 | 0.002666 | 1.59E-11 | 45.41778 |
| 81 | rs1813742 | T | C | 0.588185 | 0.018487 | 0.0025 | 1.42E-13 | 54.68762 |
| 82 | rs34896506 | C | T | 0.176744 | 0.021064 | 0.003223 | 6.32E-11 | 42.7204 |
| 83 | rs2977334 | T | G | 0.594551 | 0.016376 | 0.002508 | 6.64E-11 | 42.62531 |
| 84 | rs2469997 | C | G | 0.815428 | -0.0196 | 0.003172 | 6.44E-10 | 38.18577 |
| 85 | rs4736135 | T | C | 0.71422 | -0.0169 | 0.002751 | 8.13E-10 | 37.73039 |
| 86 | rs73563812 | T | G | 0.235901 | -0.02106 | 0.0029 | 3.85E-13 | 52.72528 |
| 87 | rs6983129 | A | C | 0.522069 | -0.0198 | 0.002479 | 1.39E-15 | 63.79503 |
| 88 | rs6271 | T | C | 0.073838 | -0.02886 | 0.004699 | 8.24E-10 | 37.70484 |
| 89 | rs10817007 | G | T | 0.128175 | 0.022057 | 0.00368 | 2.06E-09 | 35.92152 |
| 90 | rs2177843 | T | C | 0.146396 | 0.023575 | 0.003496 | 1.55E-11 | 45.47294 |
| 91 | rs10883948 | T | G | 0.503542 | -0.01354 | 0.00246 | 3.71E-08 | 30.29913 |
| 92 | rs57946343 | C | T | 0.15191 | -0.02953 | 0.003426 | 6.75E-18 | 74.29823 |
| 93 | rs56092448 | T | C | 0.114447 | 0.022238 | 0.003859 | 8.28E-09 | 33.20922 |
| 94 | rs12258967 | G | C | 0.297673 | -0.03144 | 0.002693 | 1.73E-31 | 136.3177 |
| 95 | rs11527181 | G | A | 0.433889 | -0.01837 | 0.002489 | 1.61E-13 | 54.43087 |
| 96 | rs2274224 | C | G | 0.432255 | -0.02466 | 0.002482 | 2.93E-23 | 98.72381 |
| 97 | rs1779240 | A | G | 0.763859 | -0.01893 | 0.002902 | 6.89E-11 | 42.553 |
| 98 | rs10883543 | T | G | 0.887598 | 0.031002 | 0.003921 | 2.65E-15 | 62.51898 |
| 99 | rs11191580 | C | T | 0.076747 | -0.0511 | 0.004608 | 1.42E-28 | 122.989 |
| 100 | rs2782980 | C | T | 0.721774 | 0.020191 | 0.002741 | 1.75E-13 | 54.27526 |
| 101 | rs604723 | C | T | 0.724339 | 0.033938 | 0.00277 | 1.64E-34 | 150.1423 |
| 102 | rs4937515 | C | G | 0.594982 | -0.02023 | 0.002523 | 1.06E-15 | 64.32845 |
| 103 | rs55925664 | A | T | 0.185723 | 0.025681 | 0.00316 | 4.44E-16 | 66.03799 |
| 104 | rs3781885 | T | C | 0.312544 | -0.01468 | 0.002654 | 3.20E-08 | 30.58364 |
| 105 | rs7938342 | A | T | 0.583824 | 0.025458 | 0.0025 | 2.41E-24 | 103.6719 |
| 106 | rs7123754 | C | T | 0.327459 | -0.018 | 0.002622 | 6.65E-12 | 47.13315 |
| 107 | rs2052691 | A | G | 0.287854 | 0.018941 | 0.002717 | 3.16E-12 | 48.59196 |
| 108 | rs10769253 | A | G | 0.176767 | -0.02394 | 0.003231 | 1.27E-13 | 54.90097 |
| 109 | rs4930676 | T | C | 0.10783 | -0.02433 | 0.003963 | 8.39E-10 | 37.6687 |
| 110 | rs11214436 | T | G | 0.382494 | -0.0155 | 0.002538 | 1.03E-09 | 37.26251 |
| 111 | rs3184504 | C | T | 0.517816 | -0.02148 | 0.002461 | 2.54E-18 | 76.23019 |
| 112 | rs4767332 | A | C | 0.581181 | 0.015379 | 0.002499 | 7.58E-10 | 37.86861 |
| 113 | rs60691990 | C | T | 0.342781 | -0.01968 | 0.002604 | 4.15E-14 | 57.10341 |
| 114 | rs4759062 | T | C | 0.298453 | -0.01527 | 0.002697 | 1.49E-08 | 32.06894 |
| 115 | rs2004283 | G | T | 0.578123 | -0.01367 | 0.00249 | 3.98E-08 | 30.15913 |
| 116 | rs11170386 | T | C | 0.2876 | -0.01691 | 0.002723 | 5.26E-10 | 38.57911 |
| 117 | rs73437338 | C | T | 0.166798 | -0.03765 | 0.003308 | 5.21E-30 | 129.5514 |
| 118 | rs35443 | C | G | 0.382529 | -0.01831 | 0.002525 | 4.06E-13 | 52.61957 |
| 119 | rs138110118 | G | T | 0.114477 | -0.0239 | 0.003908 | 9.61E-10 | 37.40401 |
| 120 | rs11616710 | T | C | 0.100975 | 0.026193 | 0.004324 | 1.39E-09 | 36.68801 |
| 121 | rs79621605 | C | T | 0.03444 | -0.03739 | 0.006801 | 3.85E-08 | 30.22398 |
| 122 | rs75989961 | G | T | 0.081642 | 0.024792 | 0.004493 | 3.44E-08 | 30.44334 |
| 123 | rs2240980 | G | C | 0.293396 | 0.015002 | 0.0027 | 2.74E-08 | 30.88254 |
| 124 | rs11629120 | C | T | 0.413676 | 0.013985 | 0.002508 | 2.46E-08 | 31.09025 |
| 125 | rs365990 | G | A | 0.369482 | -0.01665 | 0.002544 | 6.06E-11 | 42.80307 |
| 126 | rs9888615 | C | T | 0.710967 | 0.016954 | 0.002723 | 4.82E-10 | 38.75182 |
| 127 | rs11070245 | G | T | 0.530346 | 0.016523 | 0.002471 | 2.28E-11 | 44.71918 |
| 128 | rs4932373 | C | A | 0.326297 | 0.028522 | 0.002621 | 1.44E-27 | 118.3903 |
| 129 | rs74826317 | G | A | 0.028 | -0.05086 | 0.007431 | 7.70E-12 | 46.84423 |
| 130 | rs2627316 | G | A | 0.470869 | 0.019349 | 0.002465 | 4.20E-15 | 61.61027 |
| 131 | rs691830 | G | A | 0.476818 | 0.016941 | 0.002463 | 6.06E-12 | 47.31327 |
| 132 | rs2472299 | G | A | 0.727931 | -0.02167 | 0.002763 | 4.48E-15 | 61.48381 |
| 133 | rs3211995 | A | G | 0.158791 | -0.01992 | 0.003378 | 3.67E-09 | 34.79182 |
| 134 | rs11641308 | C | T | 0.653226 | 0.018085 | 0.002615 | 4.68E-12 | 47.82019 |
| 135 | rs2379829 | C | G | 0.732864 | -0.01678 | 0.002777 | 1.51E-09 | 36.525 |
| 136 | rs2303083 | A | G | 0.194525 | -0.02418 | 0.003111 | 7.86E-15 | 60.37694 |
| 137 | rs4843748 | A | G | 0.6687 | -0.01549 | 0.002619 | 3.35E-09 | 34.97037 |
| 138 | rs7200432 | A | G | 0.299598 | -0.01907 | 0.002693 | 1.42E-12 | 50.162 |
| 139 | rs77870048 | T | C | 0.05321 | 0.054451 | 0.005499 | 4.14E-23 | 98.03606 |
| 140 | rs4480845 | C | T | 0.639509 | -0.01994 | 0.002578 | 1.06E-14 | 59.78706 |
| 141 | rs35224044 | T | C | 0.584644 | 0.014976 | 0.002497 | 2.00E-09 | 35.97165 |
| 142 | rs55938136 | G | A | 0.226206 | -0.01693 | 0.002934 | 7.99E-09 | 33.27923 |
| 143 | rs1436138 | G | A | 0.358412 | -0.01566 | 0.002574 | 1.18E-09 | 37.00892 |
| 144 | rs11874 | A | G | 0.136912 | 0.026548 | 0.003575 | 1.12E-13 | 55.14136 |
| 145 | rs2288276 | C | G | 0.89739 | 0.02404 | 0.004059 | 3.16E-09 | 35.08486 |
| 146 | rs2301597 | C | T | 0.576399 | -0.023 | 0.002494 | 2.85E-20 | 85.10439 |
| 147 | rs3826537 | G | A | 0.427854 | 0.014316 | 0.002485 | 8.38E-09 | 33.18572 |
| 148 | rs2306526 | T | C | 0.524665 | -0.0157 | 0.002462 | 1.81E-10 | 40.66908 |
| 149 | rs78744936 | A | G | 0.268915 | 0.016205 | 0.002794 | 6.63E-09 | 33.64083 |
| 150 | rs1000423 | T | C | 0.735404 | 0.017808 | 0.002788 | 1.70E-10 | 40.78999 |
| 151 | rs6504213 | C | T | 0.591769 | 0.01545 | 0.002507 | 7.20E-10 | 37.96882 |
| 152 | rs12967060 | T | C | 0.267484 | 0.016679 | 0.002789 | 2.22E-09 | 35.77229 |
| 153 | rs11874246 | T | C | 0.293884 | 0.016884 | 0.0027 | 4.03E-10 | 39.09931 |
| 154 | rs10048404 | T | C | 0.366917 | -0.01493 | 0.002547 | 4.62E-09 | 34.34537 |
| 155 | rs144356415 | G | A | 0.0398 | 0.036359 | 0.00629 | 7.48E-09 | 33.40884 |
| 156 | rs2017199 | A | G | 0.300988 | -0.01472 | 0.002696 | 4.72E-08 | 29.82867 |
| 157 | rs10853912 | T | C | 0.399386 | 0.015436 | 0.00252 | 9.05E-10 | 37.52154 |
| 158 | rs10409243 | T | C | 0.602151 | -0.01536 | 0.002544 | 1.58E-09 | 36.43208 |
| 159 | rs167479 | T | G | 0.470348 | -0.02702 | 0.002461 | 4.76E-28 | 120.5851 |
| 160 | rs73046792 | A | G | 0.165198 | -0.02436 | 0.003307 | 1.74E-13 | 54.28005 |
| 161 | rs6026742 | A | G | 0.117761 | 0.031569 | 0.003833 | 1.79E-16 | 67.82884 |
| 162 | rs6031400 | T | C | 0.160422 | 0.019302 | 0.003366 | 9.82E-09 | 32.87873 |
| 163 | rs78473917 | C | T | 0.148716 | -0.01901 | 0.003462 | 4.03E-08 | 30.13531 |
| 164 | rs8121509 | C | T | 0.452031 | -0.01567 | 0.002471 | 2.29E-10 | 40.20385 |
| 165 | rs2423514 | G | A | 0.462868 | -0.01711 | 0.002463 | 3.75E-12 | 48.25364 |
| 166 | rs1887320 | A | G | 0.476784 | 0.018943 | 0.002466 | 1.57E-14 | 59.01726 |
| 167 | rs137923903 | T | C | 0.013495 | -0.06265 | 0.010751 | 5.65E-09 | 33.95365 |

SNP: Single nucleotide polymorphisms; SBP: systolic blood pressure; EAF: Effect allele frequency; SE：Standard error. F-statistics= (Effect/SE)2

a Effect size of each allele on genetically-determined SBP (mmHg per allele)

b Standard error of the genetic association of each effect allele with genetically-determined SBP

## Table S7. Characteristics of SNPs used as instrumental variables for genetically-determined TG.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNP | Effect allele | Other allele | EAF | Zka | σZkb | *P*-value | F-statistics |
| 1 | rs1009590 | C | G | 0.914614 | 0.024721 | 0.004177 | 3.25E-09 | 35.02869 |
| 2 | rs114165349 | C | G | 0.023534 | 0.086252 | 0.007701 | 4.14E-29 | 125.4326 |
| 3 | rs213479 | T | G | 0.46666 | -0.01504 | 0.002336 | 1.22E-10 | 41.44261 |
| 4 | rs7529073 | C | T | 0.45914 | -0.01299 | 0.002329 | 2.42E-08 | 31.12612 |
| 5 | rs114052230 | T | C | 0.16619 | -0.0239 | 0.003218 | 1.10E-13 | 55.18288 |
| 6 | rs12088739 | G | A | 0.090568 | -0.02732 | 0.00404 | 1.36E-11 | 45.73209 |
| 7 | rs11122450 | G | T | 0.61312 | -0.04754 | 0.002383 | 1.60E-88 | 398.0883 |
| 8 | rs631106 | A | C | 0.35477 | -0.08064 | 0.002427 | 1.00E-200 | 1103.926 |
| 9 | rs10631642 | CTTT | C | 0.30981 | -0.01468 | 0.002564 | 1.03E-08 | 32.79333 |
| 10 | rs17311740 | T | C | 0.068033 | -0.02642 | 0.004631 | 1.17E-08 | 32.54069 |
| 11 | rs11206374 | A | G | 0.22477 | 0.025156 | 0.002781 | 1.49E-19 | 81.82409 |
| 12 | rs2114273 | C | T | 0.60228 | 0.017083 | 0.002366 | 5.23E-13 | 52.11811 |
| 13 | rs5005705 | A | C | 0.83382 | -0.0205 | 0.003117 | 4.85E-11 | 43.24212 |
| 14 | rs1044808 | C | G | 0.082428 | -0.02819 | 0.004206 | 2.06E-11 | 44.92126 |
| 15 | rs12749691 | T | A | 0.30337 | -0.02168 | 0.002556 | 2.22E-17 | 71.94639 |
| 16 | rs9425589 | A | G | 0.56622 | -0.01359 | 0.002341 | 6.44E-09 | 33.6976 |
| 17 | rs12119979 | G | C | 0.45854 | 0.020736 | 0.002328 | 5.26E-19 | 79.33851 |
| 18 | rs6547692 | A | G | 0.55637 | -0.08511 | 0.00233 | 1.00E-200 | 1334.298 |
| 19 | rs17326656 | T | G | 0.23895 | 0.016275 | 0.002733 | 2.60E-09 | 35.46715 |
| 20 | rs35602378 | CT | C | 0.42912 | -0.0199 | 0.002349 | 2.42E-17 | 71.76673 |
| 21 | rs77342729 | G | A | 0.030786 | 0.038828 | 0.006708 | 7.12E-09 | 33.50456 |
| 22 | rs10210970 | T | C | 0.12892 | 0.029922 | 0.00346 | 5.20E-18 | 74.80912 |
| 23 | rs6708784 | G | A | 0.49804 | -0.0131 | 0.002324 | 1.73E-08 | 31.77786 |
| 24 | rs676210 | A | G | 0.20412 | -0.07658 | 0.002874 | 3.02E-156 | 709.9116 |
| 25 | rs17496249 | G | A | 0.44515 | -0.01379 | 0.002344 | 4.03E-09 | 34.61477 |
| 26 | rs11688682 | C | G | 0.27053 | -0.0166 | 0.002701 | 7.94E-10 | 37.77629 |
| 27 | rs1128249 | T | G | 0.39297 | -0.03706 | 0.002373 | 5.70E-55 | 243.9357 |
| 28 | rs377352335 | AT | A | 0.3389 | -0.01413 | 0.002558 | 3.32E-08 | 30.51379 |
| 29 | rs35549624 | CA | C | 0.49467 | -0.01391 | 0.002449 | 1.33E-08 | 32.29002 |
| 30 | rs4675812 | A | G | 0.58767 | -0.01314 | 0.002355 | 2.43E-08 | 31.11373 |
| 31 | rs1473886 | T | G | 0.47846 | -0.01856 | 0.002323 | 1.36E-15 | 63.82381 |
| 32 | rs1275519 | C | T | 0.930255 | 0.065466 | 0.00455 | 6.20E-47 | 207.0547 |
| 33 | rs11442987 | TA | T | 0.55436 | -0.01302 | 0.002344 | 2.81E-08 | 30.83734 |
| 34 | rs2723067 | G | A | 0.40962 | -0.01981 | 0.002359 | 4.57E-17 | 70.52469 |
| 35 | rs73948269 | G | A | 0.015046 | 0.057243 | 0.009551 | 2.06E-09 | 35.92164 |
| 36 | rs1420384 | T | G | 0.66745 | -0.01438 | 0.002465 | 5.40E-09 | 34.04277 |
| 37 | rs3731696 | G | A | 0.12156 | 0.020535 | 0.003546 | 6.96E-09 | 33.54551 |
| 38 | rs2943645 | T | C | 0.64638 | 0.040295 | 0.002424 | 5.15E-62 | 276.2902 |
| 39 | rs9844972 | C | G | 0.071312 | 0.04177 | 0.004587 | 8.50E-20 | 82.94041 |
| 40 | rs13066793 | G | A | 0.090236 | -0.02285 | 0.004049 | 1.66E-08 | 31.86348 |
| 41 | rs7631606 | G | T | 0.26794 | -0.01556 | 0.002644 | 3.96E-09 | 34.64161 |
| 42 | rs34389637 | CT | C | 0.065993 | -0.02908 | 0.004681 | 5.19E-10 | 38.60553 |
| 43 | rs6792725 | G | A | 0.69343 | -0.01609 | 0.002592 | 5.38E-10 | 38.54043 |
| 44 | rs9836434 | T | C | 0.24167 | 0.01498 | 0.00272 | 3.63E-08 | 30.33986 |
| 45 | rs17052058 | G | A | 0.18183 | -0.03187 | 0.003006 | 2.95E-26 | 112.3981 |
| 46 | rs1279840 | C | T | 0.75021 | 0.028006 | 0.002684 | 1.71E-25 | 108.9178 |
| 47 | rs79287178 | A | G | 0.031313 | 0.054891 | 0.006991 | 4.13E-15 | 61.64338 |
| 48 | rs3105363 | G | A | 0.22831 | 0.02364 | 0.002861 | 1.43E-16 | 68.26507 |
| 49 | rs4647214 | AT | A | 0.42499 | -0.01433 | 0.002433 | 3.85E-09 | 34.69999 |
| 50 | rs58284370 | A | G | 0.095358 | 0.026881 | 0.003959 | 1.12E-11 | 46.10434 |
| 51 | rs13108218 | G | A | 0.61828 | -0.03175 | 0.002408 | 1.10E-39 | 173.8385 |
| 52 | rs293435 | T | C | 0.28679 | 0.01785 | 0.002567 | 3.58E-12 | 48.34561 |
| 53 | rs1471251 | T | A | 0.39916 | 0.038485 | 0.002374 | 4.21E-59 | 262.9084 |
| 54 | rs10470884 | A | G | 0.23032 | -0.01625 | 0.002774 | 4.71E-09 | 34.30908 |
| 55 | rs3822072 | A | G | 0.44865 | 0.016627 | 0.002331 | 9.86E-13 | 50.87518 |
| 56 | rs71603401 | G | A | 0.13508 | 0.026641 | 0.003424 | 7.25E-15 | 60.53523 |
| 57 | rs73243877 | G | A | 0.16771 | 0.027698 | 0.003101 | 4.22E-19 | 79.77472 |
| 58 | rs11722924 | C | G | 0.53768 | 0.013532 | 0.002324 | 5.84E-09 | 33.89239 |
| 59 | rs12513202 | T | C | 0.60001 | 0.013606 | 0.002395 | 1.33E-08 | 32.28187 |
| 60 | rs6554198 | A | G | 0.59026 | -0.01327 | 0.002358 | 1.82E-08 | 31.67911 |
| 61 | rs35225200 | C | A | 0.082956 | 0.031323 | 0.004333 | 4.85E-13 | 52.26965 |
| 62 | rs2139980 | A | G | 0.36565 | -0.01488 | 0.00242 | 7.84E-10 | 37.80138 |
| 63 | rs4976033 | G | A | 0.40117 | 0.018832 | 0.002398 | 4.01E-15 | 61.69865 |
| 64 | rs1045241 | T | C | 0.27114 | -0.02232 | 0.002625 | 1.85E-17 | 72.30766 |
| 65 | rs154735 | A | G | 0.06345 | 0.028025 | 0.004793 | 5.01E-09 | 34.18964 |
| 66 | rs112424890 | T | C | 0.18048 | 0.018175 | 0.003024 | 1.86E-09 | 36.11834 |
| 67 | rs10040328 | A | C | 0.26183 | 0.015304 | 0.002638 | 6.62E-09 | 33.64563 |
| 68 | rs7735249 | G | C | 0.11275 | 0.026359 | 0.003688 | 8.82E-13 | 51.09404 |
| 69 | rs593979 | C | T | 0.40133 | -0.01954 | 0.002496 | 4.90E-15 | 61.30191 |
| 70 | rs34580448 | C | T | 0.040976 | -0.03674 | 0.00586 | 3.59E-10 | 39.32346 |
| 71 | rs6882076 | C | T | 0.63568 | 0.036111 | 0.002407 | 7.25E-51 | 225.0935 |
| 72 | rs11429307 | GT | G | 0.1908 | 0.046725 | 0.00298 | 2.20E-55 | 245.8312 |
| 73 | rs142047875 | T | A | 0.57481 | -0.01339 | 0.002372 | 1.64E-08 | 31.87913 |
| 74 | rs1644005 | C | T | 0.36191 | -0.01437 | 0.002413 | 2.64E-09 | 35.43436 |
| 75 | rs72801474 | A | G | 0.092722 | -0.03138 | 0.004002 | 4.48E-15 | 61.48391 |
| 76 | rs9264277 | C | T | 0.63166 | 0.014514 | 0.002414 | 1.84E-09 | 36.1403 |
| 77 | rs28359800 | C | CAA | 0.28494 | 0.029511 | 0.00257 | 1.62E-30 | 131.8668 |
| 78 | rs998584 | A | C | 0.48163 | 0.03985 | 0.002326 | 9.14E-66 | 293.4944 |
| 79 | rs6916318 | T | A | 0.53269 | 0.02615 | 0.002329 | 3.01E-29 | 126.0679 |
| 80 | rs4710938 | G | A | 0.46191 | -0.0144 | 0.002328 | 6.15E-10 | 38.27642 |
| 81 | rs28752924 | C | T | 0.44037 | 0.031652 | 0.002416 | 3.19E-39 | 171.7071 |
| 82 | rs10872003 | A | T | 0.45283 | -0.01308 | 0.002337 | 2.17E-08 | 31.3324 |
| 83 | rs73025562 | A | G | 0.24549 | 0.015806 | 0.002705 | 5.12E-09 | 34.14613 |
| 84 | rs77009508 | G | A | 0.075135 | 0.045189 | 0.004407 | 1.13E-24 | 105.1618 |
| 85 | rs28383314 | C | T | 0.62442 | 0.041134 | 0.002393 | 3.42E-66 | 295.4721 |
| 86 | rs729761 | G | T | 0.71129 | 0.017988 | 0.002583 | 3.31E-12 | 48.49723 |
| 87 | rs1064173 | A | G | 0.28694 | -0.02486 | 0.002685 | 2.08E-20 | 85.72137 |
| 88 | rs707931 | G | A | 0.059246 | 0.032373 | 0.004915 | 4.50E-11 | 43.38646 |
| 89 | rs11752394 | G | C | 0.76426 | 0.017287 | 0.002735 | 2.63E-10 | 39.93904 |
| 90 | rs199607859 | T | G | 0.59411 | -0.02937 | 0.002368 | 2.53E-35 | 153.8597 |
| 91 | rs186696265 | T | C | 0.014913 | -0.10235 | 0.009619 | 1.95E-26 | 113.2299 |
| 92 | rs1835346 | G | A | 0.024081 | -0.04273 | 0.007611 | 1.98E-08 | 31.51713 |
| 93 | rs13234131 | G | A | 0.12909 | -0.12951 | 0.003448 | 1.00E-200 | 1410.494 |
| 94 | rs38205 | C | A | 0.62188 | -0.01486 | 0.002411 | 7.09E-10 | 37.99675 |
| 95 | rs4722551 | C | T | 0.15861 | -0.03714 | 0.00318 | 1.68E-31 | 136.3643 |
| 96 | rs2699805 | A | G | 0.40171 | -0.01851 | 0.002381 | 7.68E-15 | 60.42054 |
| 97 | rs2070971 | T | G | 0.13726 | 0.024664 | 0.00338 | 2.96E-13 | 53.24051 |
| 98 | rs2971669 | T | C | 0.21755 | 0.016266 | 0.002813 | 7.38E-09 | 33.43184 |
| 99 | rs4731701 | T | C | 0.49576 | -0.03368 | 0.002324 | 1.43E-47 | 209.9837 |
| 100 | rs112206063 | C | T | 0.20653 | 0.018934 | 0.00295 | 1.38E-10 | 41.19464 |
| 101 | rs852392 | A | G | 0.21724 | 0.01607 | 0.002811 | 1.08E-08 | 32.68443 |
| 102 | rs41749 | A | C | 0.452 | -0.015 | 0.002338 | 1.42E-10 | 41.14174 |
| 103 | rs4410790 | C | T | 0.63426 | 0.016122 | 0.00241 | 2.26E-11 | 44.73625 |
| 104 | rs17138358 | C | G | 0.39619 | 0.018621 | 0.002374 | 4.38E-15 | 61.52918 |
| 105 | rs917195 | T | C | 0.23078 | -0.01569 | 0.002781 | 1.69E-08 | 31.82346 |
| 106 | rs72555385 | G | A | 0.048707 | 0.066648 | 0.005405 | 6.24E-35 | 152.0656 |
| 107 | rs9692598 | G | A | 0.50737 | -0.01368 | 0.002322 | 3.82E-09 | 34.71335 |
| 108 | rs13273454 | T | C | 0.46899 | -0.05507 | 0.002327 | 1.11E-123 | 559.9193 |
| 109 | rs7826687 | G | C | 0.28447 | 0.032527 | 0.00257 | 1.05E-36 | 160.1974 |
| 110 | rs4841580 | C | T | 0.43423 | -0.02396 | 0.002347 | 1.87E-24 | 104.1668 |
| 111 | rs2081687 | C | T | 0.66344 | -0.02602 | 0.002453 | 2.75E-26 | 112.5373 |
| 112 | rs35859536 | T | C | 0.31321 | -0.01573 | 0.002506 | 3.48E-10 | 39.39118 |
| 113 | rs4646246 | G | A | 0.18492 | 0.030376 | 0.002987 | 2.73E-24 | 103.4236 |
| 114 | rs59347135 | G | C | 0.045638 | 0.074638 | 0.005702 | 3.81E-39 | 171.3607 |
| 115 | rs2954017 | C | T | 0.52034 | -0.08935 | 0.002321 | 1.00E-200 | 1482.54 |
| 116 | rs12541912 | C | G | 0.29104 | -0.09644 | 0.002547 | 1.00E-200 | 1433.356 |
| 117 | rs13269725 | G | A | 0.079506 | 0.03532 | 0.004292 | 1.88E-16 | 67.73341 |
| 118 | rs10957299 | G | T | 0.43483 | -0.01303 | 0.002342 | 2.66E-08 | 30.9428 |
| 119 | rs13275656 | C | T | 0.57013 | 0.013539 | 0.002478 | 4.68E-08 | 29.84939 |
| 120 | rs34081699 | A | G | 0.34124 | -0.0141 | 0.002491 | 1.54E-08 | 32.00944 |
| 121 | rs57994353 | C | T | 0.29973 | 0.014533 | 0.002529 | 9.18E-09 | 33.01228 |
| 122 | rs10797119 | C | T | 0.53651 | 0.017236 | 0.002338 | 1.68E-13 | 54.3527 |
| 123 | rs550057 | T | C | 0.25477 | -0.01938 | 0.002668 | 3.77E-13 | 52.76527 |
| 124 | rs296884 | T | G | 0.25504 | -0.02353 | 0.002666 | 1.07E-18 | 77.92322 |
| 125 | rs1853413 | G | C | 0.34534 | -0.01411 | 0.002446 | 8.14E-09 | 33.24503 |
| 126 | rs1924485 | T | G | 0.13227 | -0.0205 | 0.003431 | 2.28E-09 | 35.7207 |
| 127 | rs12686780 | T | C | 0.1742 | 0.016979 | 0.003061 | 2.90E-08 | 30.7719 |
| 128 | rs1800978 | G | C | 0.12415 | -0.02552 | 0.003533 | 5.11E-13 | 52.16753 |
| 129 | rs76669111 | T | G | 0.15652 | -0.02411 | 0.003198 | 4.75E-14 | 56.8366 |
| 130 | rs7896783 | A | G | 0.47239 | -0.03407 | 0.002324 | 1.21E-48 | 214.905 |
| 131 | rs11000468 | T | C | 0.25412 | -0.01696 | 0.002708 | 3.76E-10 | 39.23292 |
| 132 | rs2068888 | A | G | 0.44892 | -0.03081 | 0.002329 | 6.14E-40 | 174.9879 |
| 133 | rs2773469 | G | A | 0.73563 | -0.02027 | 0.002638 | 1.57E-14 | 59.0165 |
| 134 | rs1133400 | G | A | 0.22221 | 0.016796 | 0.002787 | 1.68E-09 | 36.31151 |
| 135 | rs11187019 | G | A | 0.54999 | -0.01302 | 0.00234 | 2.67E-08 | 30.93811 |
| 136 | rs74563318 | A | C | 0.035971 | -0.05058 | 0.006321 | 1.24E-15 | 64.01367 |
| 137 | rs34875072 | T | G | 0.038731 | -0.03742 | 0.006004 | 4.60E-10 | 38.84056 |
| 138 | rs113344423 | A | G | 0.061078 | 0.042829 | 0.004969 | 6.75E-18 | 74.29428 |
| 139 | rs10883026 | T | C | 0.52035 | -0.01507 | 0.002338 | 1.16E-10 | 41.53736 |
| 140 | rs17699425 | A | G | 0.058141 | -0.028 | 0.004949 | 1.54E-08 | 32.00449 |
| 141 | rs34931109 | TA | T | 0.23887 | -0.01763 | 0.002794 | 2.80E-10 | 39.8138 |
| 142 | rs45487899 | T | C | 0.048032 | -0.03648 | 0.005453 | 2.24E-11 | 44.75061 |
| 143 | rs57232565 | T | C | 0.055365 | 0.19444 | 0.005073 | 1.00E-200 | 1469.182 |
| 144 | rs6486122 | T | C | 0.69111 | 0.019909 | 0.002508 | 2.04E-15 | 63.03509 |
| 145 | rs11600815 | A | G | 0.052967 | -0.03652 | 0.005303 | 5.73E-12 | 47.42522 |
| 146 | rs10750766 | A | C | 0.71086 | 0.021577 | 0.00256 | 3.55E-17 | 71.02323 |
| 147 | rs7952521 | A | G | 0.10547 | -0.02914 | 0.003902 | 8.09E-14 | 55.78771 |
| 148 | rs7123454 | A | C | 0.88225 | -0.12778 | 0.0036 | 1.00E-200 | 1260.066 |
| 149 | rs11030107 | G | A | 0.26437 | 0.016587 | 0.00263 | 2.87E-10 | 39.76419 |
| 150 | rs12281051 | C | A | 0.013535 | 0.070032 | 0.010053 | 3.26E-12 | 48.52904 |
| 151 | rs12294913 | G | C | 0.048646 | 0.055264 | 0.005557 | 2.69E-23 | 98.89104 |
| 152 | rs7117238 | A | G | 0.15846 | -0.01894 | 0.003174 | 2.41E-09 | 35.61394 |
| 153 | rs10838681 | A | G | 0.2683 | -0.02629 | 0.002614 | 8.65E-24 | 101.1355 |
| 154 | rs174574 | C | A | 0.64696 | -0.0512 | 0.002429 | 1.47E-98 | 444.2703 |
| 155 | rs4930352 | T | G | 0.4955 | -0.01377 | 0.002361 | 5.48E-09 | 34.01378 |
| 156 | rs79291519 | T | C | 0.05259 | -0.06463 | 0.005209 | 2.46E-35 | 153.9145 |
| 157 | rs187929675 | T | C | 0.013492 | -0.17449 | 0.010185 | 9.13E-66 | 293.5074 |
| 158 | rs1790099 | T | C | 0.70835 | 0.016651 | 0.002564 | 8.40E-11 | 42.16411 |
| 159 | rs11057837 | T | C | 0.10263 | 0.021831 | 0.003838 | 1.28E-08 | 32.35807 |
| 160 | rs199795230 | T | C | 0.15826 | 0.026592 | 0.003184 | 6.77E-17 | 69.74749 |
| 161 | rs4761234 | C | T | 0.48647 | -0.01633 | 0.002328 | 2.29E-12 | 49.21853 |
| 162 | rs12424054 | A | G | 0.23414 | 0.019019 | 0.002739 | 3.83E-12 | 48.21249 |
| 163 | rs4930724 | C | T | 0.32972 | -0.02658 | 0.002467 | 4.51E-27 | 116.1221 |
| 164 | rs76895963 | G | T | 0.021076 | -0.09073 | 0.008901 | 2.14E-24 | 103.909 |
| 165 | rs10772947 | G | A | 0.529 | -0.01368 | 0.002324 | 4.02E-09 | 34.61548 |
| 166 | rs4760254 | C | G | 0.24187 | -0.02841 | 0.002705 | 8.18E-26 | 110.3723 |
| 167 | rs863750 | T | C | 0.60455 | 0.029472 | 0.002377 | 2.66E-35 | 153.7567 |
| 168 | rs7298844 | G | A | 0.20792 | 0.01571 | 0.002852 | 3.62E-08 | 30.34264 |
| 169 | rs11045171 | G | A | 0.1977 | -0.0286 | 0.002927 | 1.54E-22 | 95.42806 |
| 170 | rs2694913 | C | A | 0.64298 | 0.014079 | 0.002425 | 6.43E-09 | 33.70144 |
| 171 | rs1928496 | T | C | 0.74159 | 0.01667 | 0.002647 | 3.01E-10 | 39.66696 |
| 172 | rs2812208 | C | G | 0.021097 | -0.05154 | 0.008074 | 1.74E-10 | 40.74013 |
| 173 | rs12868517 | G | T | 0.24596 | -0.01482 | 0.002714 | 4.79E-08 | 29.80104 |
| 174 | rs1340819 | C | A | 0.347 | -0.01346 | 0.002439 | 3.42E-08 | 30.45447 |
| 175 | rs11274835 | CGAGTGTGGGAATCT | C | 0.17376 | -0.0285 | 0.003226 | 1.03E-18 | 78.00661 |
| 176 | rs6492721 | C | T | 0.68531 | -0.01482 | 0.002496 | 2.92E-09 | 35.23577 |
| 177 | rs7140110 | C | T | 0.29697 | 0.029279 | 0.002539 | 9.05E-31 | 133.0221 |
| 178 | rs12880341 | C | T | 0.15822 | 0.020424 | 0.003194 | 1.62E-10 | 40.87926 |
| 179 | rs61993685 | C | T | 0.077957 | -0.02388 | 0.004319 | 3.22E-08 | 30.57304 |
| 180 | rs139624990 | T | C | 0.009891 | 0.068628 | 0.012516 | 4.18E-08 | 30.06572 |
| 181 | rs11631625 | G | A | 0.25901 | 0.014743 | 0.00265 | 2.64E-08 | 30.95839 |
| 182 | rs7167078 | G | C | 0.31213 | -0.01537 | 0.002505 | 8.52E-10 | 37.6377 |
| 183 | rs139974673 | C | T | 0.024986 | 0.14437 | 0.007442 | 8.71E-84 | 376.3249 |
| 184 | rs422137 | A | G | 0.43734 | 0.026391 | 0.002352 | 3.21E-29 | 125.9354 |
| 185 | rs261342 | C | G | 0.78004 | -0.04704 | 0.002812 | 8.05E-63 | 279.9715 |
| 186 | rs2652812 | T | C | 0.76651 | -0.01825 | 0.002759 | 3.76E-11 | 43.73853 |
| 187 | rs10851698 | T | C | 0.26147 | 0.016157 | 0.002648 | 1.06E-09 | 37.21811 |
| 188 | rs3826043 | T | C | 0.42911 | -0.01364 | 0.002361 | 7.52E-09 | 33.40012 |
| 189 | rs8025505 | T | C | 0.2558 | 0.022162 | 0.002668 | 1.00E-16 | 68.97886 |
| 190 | rs34967613 | CTT | C | 0.46818 | 0.015088 | 0.002338 | 1.09E-10 | 41.66035 |
| 191 | rs12928099 | A | C | 0.29628 | -0.03073 | 0.002544 | 1.33E-33 | 145.9788 |
| 192 | rs2925979 | C | T | 0.69891 | -0.03151 | 0.002528 | 1.14E-35 | 155.44 |
| 193 | rs12446515 | T | C | 0.32444 | -0.03551 | 0.002486 | 2.88E-46 | 204.011 |
| 194 | rs1684608 | A | C | 0.19225 | 0.01824 | 0.002945 | 5.90E-10 | 38.35483 |
| 195 | rs4843754 | G | A | 0.49776 | 0.014204 | 0.002326 | 1.02E-09 | 37.278 |
| 196 | rs34682685 | A | G | 0.10519 | 0.033067 | 0.003795 | 2.97E-18 | 75.91772 |
| 197 | rs1549293 | T | C | 0.35553 | -0.01572 | 0.002426 | 9.22E-11 | 41.98279 |
| 198 | rs8051062 | C | T | 0.57547 | -0.01977 | 0.002396 | 1.56E-16 | 68.09901 |
| 199 | rs74456742 | A | G | 0.037384 | -0.04661 | 0.006311 | 1.52E-13 | 54.55177 |
| 200 | rs1801689 | C | A | 0.029886 | -0.06379 | 0.006811 | 7.60E-21 | 87.71676 |
| 201 | rs60856912 | T | G | 0.16247 | 0.025468 | 0.003162 | 7.96E-16 | 64.88561 |
| 202 | rs4969179 | G | T | 0.60395 | -0.01847 | 0.002374 | 7.23E-15 | 60.54408 |
| 203 | rs72836561 | T | C | 0.031831 | 0.14118 | 0.006603 | 2.37E-101 | 457.1415 |
| 204 | rs115271198 | T | C | 0.069597 | -0.0276 | 0.00457 | 1.54E-09 | 36.48483 |
| 205 | rs591939 | G | A | 0.25019 | 0.020518 | 0.002681 | 1.98E-14 | 58.56142 |
| 206 | rs11078597 | C | T | 0.18634 | 0.020328 | 0.002976 | 8.39E-12 | 46.6734 |
| 207 | rs56030759 | C | T | 0.060888 | 0.040682 | 0.00486 | 5.76E-17 | 70.06422 |
| 208 | rs1292065 | G | C | 0.7105 | -0.01624 | 0.002555 | 2.08E-10 | 40.38906 |
| 209 | rs4789182 | A | G | 0.73353 | 0.015239 | 0.002622 | 6.15E-09 | 33.78679 |
| 210 | rs11664106 | T | A | 0.37354 | -0.01479 | 0.002456 | 1.70E-09 | 36.2879 |
| 211 | rs6506033 | T | C | 0.071494 | -0.02948 | 0.004505 | 6.01E-11 | 42.81614 |
| 212 | rs867939 | A | G | 0.57662 | -0.01551 | 0.00236 | 4.97E-11 | 43.19354 |
| 213 | rs68033110 | A | G | 0.24701 | 0.017831 | 0.002731 | 6.63E-11 | 42.6324 |
| 214 | rs2510344 | C | T | 0.49298 | -0.01706 | 0.002323 | 2.06E-13 | 53.9526 |
| 215 | rs116843064 | A | G | 0.019519 | -0.2279 | 0.008364 | 2.67E-163 | 742.4209 |
| 216 | rs62117489 | A | C | 0.054659 | -0.04574 | 0.005116 | 3.88E-19 | 79.94057 |
| 217 | rs58542926 | T | C | 0.075445 | -0.10552 | 0.004391 | 1.73E-127 | 577.4087 |
| 218 | rs188247550 | T | C | 0.013291 | -0.13663 | 0.010583 | 4.02E-38 | 166.6766 |
| 219 | rs62118471 | C | T | 0.027197 | 0.048633 | 0.007581 | 1.41E-10 | 41.15589 |
| 220 | rs12151142 | C | T | 0.44222 | 0.019143 | 0.002342 | 3.00E-16 | 66.81073 |
| 221 | rs10405944 | C | T | 0.48383 | -0.01303 | 0.002358 | 3.32E-08 | 30.50921 |
| 222 | rs739320 | C | T | 0.60407 | -0.02129 | 0.002426 | 1.75E-18 | 76.96515 |
| 223 | rs62112763 | G | C | 0.44101 | 0.020615 | 0.002346 | 1.55E-18 | 77.20343 |
| 224 | rs62102718 | T | A | 0.28613 | 0.020836 | 0.002572 | 5.50E-16 | 65.61233 |
| 225 | rs1688043 | T | C | 0.933843 | 0.028631 | 0.004665 | 8.38E-10 | 37.6726 |
| 226 | rs34690548 | CAAA | C | 0.10754 | 0.023253 | 0.004034 | 8.18E-09 | 33.23486 |
| 227 | rs483082 | T | G | 0.23737 | 0.089363 | 0.002726 | 1.00E-200 | 1074.8 |
| 228 | rs5112 | G | C | 0.53202 | 0.068337 | 0.002486 | 3.29E-166 | 755.8131 |
| 229 | rs149142833 | T | C | 0.1562 | 0.01933 | 0.003222 | 1.99E-09 | 35.98585 |
| 230 | rs6066138 | A | G | 0.28398 | -0.01977 | 0.002577 | 1.69E-14 | 58.87204 |
| 231 | rs6093446 | A | G | 0.2869 | 0.014235 | 0.002566 | 2.91E-08 | 30.76806 |
| 232 | rs7274718 | A | G | 0.59909 | 0.015787 | 0.002364 | 2.43E-11 | 44.59309 |
| 233 | rs8126001 | T | C | 0.48973 | -0.01806 | 0.002327 | 8.43E-15 | 60.23345 |
| 234 | rs6073958 | C | T | 0.19849 | 0.055687 | 0.002908 | 1.00E-81 | 366.8328 |
| 235 | rs12480662 | T | C | 0.25075 | -0.01547 | 0.002687 | 8.49E-09 | 33.16241 |
| 236 | rs5755799 | G | C | 0.45279 | 0.013109 | 0.002333 | 1.92E-08 | 31.57796 |
| 237 | rs2267373 | T | C | 0.58124 | 0.022467 | 0.002352 | 1.29E-21 | 91.22308 |
| 238 | rs2071887 | A | T | 0.3433 | 0.016832 | 0.002444 | 5.70E-12 | 47.43562 |
| 239 | rs11705483 | A | C | 0.11078 | 0.023944 | 0.00369 | 8.69E-11 | 42.09655 |
| 240 | rs5965373 | G | T | 0.85712 | -0.01765 | 0.002742 | 1.22E-10 | 41.43513 |

SNP: Single nucleotide polymorphisms; TG: triglycerides; EAF: Effect allele frequency; SE：Standard error. F-statistics= (Effect/SE)2

a Effect size of each allele on genetically-determined TG (mmol/l per allele)

b Standard error of the genetic association of each effect allele with genetically-determined TG

## Table S8. Characteristics of SNPs used as instrumental variables for genetically-determined alcohol intake frequency.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNP | Effect allele | Other allele | EAF | Zka | σZkb | *P*-value | F-statistics | |
| 1 | rs780569 | A | T | 0.70882 | 0.019803 | 0.003365 | 4.00E-09 | 34.64366 |
| 2 | rs4503294 | T | C | 0.565333 | 0.018148 | 0.00307 | 3.40E-09 | 34.93197 |
| 3 | rs28787109 | A | G | 0.40423 | 0.017811 | 0.003085 | 7.70E-09 | 33.33968 |
| 4 | rs2244598 | C | T | 0.605114 | -0.01838 | 0.003119 | 3.80E-09 | 34.71732 |
| 5 | rs4417025 | A | G | 0.361153 | -0.01884 | 0.003165 | 2.70E-09 | 35.42205 |
| 6 | rs7514579 | C | A | 0.232457 | 0.019667 | 0.003598 | 4.60E-08 | 29.88077 |
| 7 | rs2717063 | A | C | 0.585731 | -0.02037 | 0.003085 | 4.00E-11 | 43.61239 |
| 8 | rs6727281 | T | C | 0.184023 | -0.02432 | 0.00392 | 5.50E-10 | 38.50403 |
| 9 | rs780094 | C | T | 0.615206 | -0.05099 | 0.003105 | 1.30E-60 | 269.7086 |
| 10 | rs13390019 | C | T | 0.134041 | 0.029612 | 0.004492 | 4.30E-11 | 43.45893 |
| 11 | rs10188314 | T | C | 0.470852 | -0.01979 | 0.003036 | 7.20E-11 | 42.47542 |
| 12 | rs4241258 | T | C | 0.13763 | 0.025064 | 0.004403 | 1.30E-08 | 32.39964 |
| 13 | rs72769229 | T | A | 0.154942 | -0.02314 | 0.004192 | 3.40E-08 | 30.46487 |
| 14 | rs17662759 | C | T | 0.089115 | 0.030135 | 0.00546 | 3.40E-08 | 30.45805 |
| 15 | rs1991083 | T | C | 0.679886 | -0.02239 | 0.003258 | 6.30E-12 | 47.23548 |
| 16 | rs473098 | T | C | 0.557689 | -0.02174 | 0.003043 | 9.10E-13 | 51.02825 |
| 17 | rs9829192 | T | G | 0.435133 | 0.016932 | 0.00305 | 2.80E-08 | 30.81387 |
| 18 | rs76082653 | T | C | 0.054327 | 0.046427 | 0.006687 | 3.80E-12 | 48.20719 |
| 19 | rs262240 | T | C | 0.468553 | -0.01721 | 0.003035 | 1.40E-08 | 32.14708 |
| 20 | rs9814516 | T | G | 0.237423 | -0.02511 | 0.003556 | 1.60E-12 | 49.87186 |
| 21 | rs7610856 | A | C | 0.429053 | -0.02386 | 0.00307 | 7.70E-15 | 60.41538 |
| 22 | rs1515591 | G | T | 0.383186 | 0.01823 | 0.003116 | 4.90E-09 | 34.2212 |
| 23 | rs1228589 | A | G | 0.246133 | 0.02107 | 0.003528 | 2.30E-09 | 35.66589 |
| 24 | rs28622224 | T | C | 0.280364 | -0.01862 | 0.003368 | 3.20E-08 | 30.55917 |
| 25 | rs13135092 | G | A | 0.083483 | 0.043834 | 0.005499 | 1.60E-15 | 63.54509 |
| 26 | rs11940694 | G | A | 0.604193 | -0.04371 | 0.003116 | 1.00E-44 | 196.7964 |
| 27 | rs362307 | T | C | 0.074582 | 0.043305 | 0.005802 | 8.40E-14 | 55.70397 |
| 28 | rs1229984 | C | T | 0.97277 | -0.26171 | 0.009185 | 1.40E-178 | 811.8568 |
| 29 | rs13102973 | C | T | 0.61881 | -0.01941 | 0.003119 | 4.90E-10 | 38.72261 |
| 30 | rs62339673 | A | C | 0.626705 | 0.018294 | 0.003154 | 6.60E-09 | 33.64277 |
| 31 | rs34811474 | A | G | 0.230728 | -0.02018 | 0.003593 | 1.90E-08 | 31.54674 |
| 32 | rs2159935 | A | G | 0.490369 | -0.01857 | 0.003026 | 8.30E-10 | 37.68201 |
| 33 | rs62305780 | G | C | 0.102253 | -0.04852 | 0.005066 | 9.90E-22 | 91.74144 |
| 34 | rs13178443 | T | C | 0.276349 | -0.01865 | 0.00339 | 3.80E-08 | 30.27446 |
| 35 | rs11750777 | A | G | 0.209454 | -0.02049 | 0.003726 | 3.80E-08 | 30.24789 |
| 36 | rs4916723 | C | A | 0.420617 | 0.023948 | 0.0031 | 1.10E-14 | 59.69649 |
| 37 | rs461599 | C | A | 0.462259 | -0.01919 | 0.00304 | 2.70E-10 | 39.8487 |
| 38 | rs56194430 | T | C | 0.16931 | 0.02254 | 0.004071 | 3.10E-08 | 30.64889 |
| 39 | rs9403297 | A | G | 0.372967 | 0.018823 | 0.00313 | 1.80E-09 | 36.15803 |
| 40 | rs9349379 | G | A | 0.405493 | -0.01935 | 0.003082 | 3.50E-10 | 39.39602 |
| 41 | rs12153855 | C | T | 0.10497 | 0.029444 | 0.004935 | 2.40E-09 | 35.59858 |
| 42 | rs9372625 | A | G | 0.381706 | -0.02556 | 0.003125 | 2.90E-16 | 66.90245 |
| 43 | rs62466318 | T | C | 0.202827 | -0.02549 | 0.003774 | 1.40E-11 | 45.61993 |
| 44 | rs2622167 | A | G | 0.428653 | -0.01912 | 0.003067 | 4.60E-10 | 38.83564 |
| 45 | rs73050128 | A | C | 0.164488 | -0.026 | 0.004091 | 2.10E-10 | 40.40858 |
| 46 | rs6943160 | C | T | 0.208646 | 0.020627 | 0.003728 | 3.10E-08 | 30.61829 |
| 47 | rs4726481 | T | G | 0.400576 | 0.021761 | 0.003102 | 2.30E-12 | 49.21797 |
| 48 | rs9648478 | A | G | 0.510245 | 0.01686 | 0.003029 | 2.60E-08 | 30.98545 |
| 49 | rs2160935 | T | C | 0.604293 | -0.01872 | 0.003091 | 1.40E-09 | 36.66681 |
| 50 | rs34440851 | T | C | 0.157151 | -0.02268 | 0.004151 | 4.60E-08 | 29.8667 |
| 51 | rs11787216 | T | C | 0.369127 | 0.024416 | 0.003201 | 2.40E-14 | 58.18948 |
| 52 | rs2977454 | G | C | 0.124072 | -0.02592 | 0.004599 | 1.70E-08 | 31.77647 |
| 53 | rs74679146 | C | T | 0.074515 | -0.03207 | 0.005758 | 2.50E-08 | 31.03232 |
| 54 | rs489062 | A | G | 0.437454 | 0.01665 | 0.003053 | 4.90E-08 | 29.74336 |
| 55 | rs34473884 | A | G | 0.24819 | -0.02036 | 0.003503 | 6.20E-09 | 33.77732 |
| 56 | rs61873510 | T | G | 0.32785 | 0.020374 | 0.003303 | 6.90E-10 | 38.04466 |
| 57 | rs4242715 | A | G | 0.680585 | -0.01865 | 0.003248 | 9.30E-09 | 32.97942 |
| 58 | rs10792669 | G | A | 0.505254 | 0.017432 | 0.003041 | 9.90E-09 | 32.86787 |
| 59 | rs11223617 | A | G | 0.206155 | 0.025091 | 0.003754 | 2.30E-11 | 44.67705 |
| 60 | rs550942 | T | C | 0.823865 | 0.022401 | 0.003989 | 2.00E-08 | 31.53854 |
| 61 | rs11039429 | T | C | 0.454624 | -0.02356 | 0.003037 | 8.70E-15 | 60.16401 |
| 62 | rs1666658 | C | T | 0.392206 | 0.017967 | 0.003099 | 6.70E-09 | 33.62193 |
| 63 | rs12312693 | C | T | 0.451772 | -0.01768 | 0.00305 | 6.80E-09 | 33.60043 |
| 64 | rs7302200 | A | G | 0.339998 | -0.01842 | 0.003198 | 8.40E-09 | 33.17529 |
| 65 | rs28768122 | C | T | 0.759525 | 0.0207 | 0.003552 | 5.60E-09 | 33.96135 |
| 66 | rs7298932 | G | A | 0.147849 | -0.02372 | 0.004312 | 3.80E-08 | 30.26855 |
| 67 | rs58905411 | A | G | 0.410052 | -0.02663 | 0.003078 | 5.10E-18 | 74.85312 |
| 68 | rs1937522 | G | A | 0.528054 | 0.016898 | 0.003032 | 2.50E-08 | 31.05897 |
| 69 | rs7330939 | T | C | 0.720352 | -0.02133 | 0.003405 | 3.70E-10 | 39.25126 |
| 70 | rs2535911 | T | C | 0.354749 | -0.01885 | 0.003168 | 2.70E-09 | 35.38404 |
| 71 | rs186347 | T | G | 0.463343 | 0.017949 | 0.003051 | 4.00E-09 | 34.61576 |
| 72 | rs80292319 | C | T | 0.057704 | -0.03937 | 0.006496 | 1.40E-09 | 36.73866 |
| 73 | rs117799466 | C | G | 0.336989 | -0.01967 | 0.00332 | 3.10E-09 | 35.11025 |
| 74 | rs34631026 | T | C | 0.446061 | -0.01691 | 0.003048 | 2.90E-08 | 30.78293 |
| 75 | rs72787062 | A | G | 0.162767 | -0.02819 | 0.004103 | 6.40E-12 | 47.21512 |
| 76 | rs35105141 | T | C | 0.401541 | 0.026345 | 0.003088 | 1.40E-17 | 72.79065 |
| 77 | rs1421085 | C | T | 0.403447 | 0.019939 | 0.003085 | 1.00E-10 | 41.77906 |
| 78 | rs1104608 | C | G | 0.426338 | 0.017421 | 0.003088 | 1.70E-08 | 31.81733 |
| 79 | rs8043563 | C | G | 0.737192 | 0.023365 | 0.003471 | 1.70E-11 | 45.30798 |
| 80 | rs2411453 | G | T | 0.597353 | -0.03508 | 0.00309 | 7.30E-30 | 128.8473 |
| 81 | rs728538 | G | T | 0.168868 | 0.022875 | 0.004063 | 1.80E-08 | 31.70471 |
| 82 | rs9906502 | A | G | 0.176998 | 0.023788 | 0.003962 | 1.90E-09 | 36.05339 |
| 83 | rs8614 | A | C | 0.182509 | 0.024781 | 0.003925 | 2.70E-10 | 39.85313 |
| 84 | rs4968391 | T | G | 0.674892 | -0.01927 | 0.003227 | 2.30E-09 | 35.6679 |
| 85 | rs9912298 | C | A | 0.239585 | 0.020589 | 0.00359 | 9.70E-09 | 32.8939 |
| 86 | rs17690703 | T | C | 0.262687 | 0.025034 | 0.00343 | 2.90E-13 | 53.26305 |
| 87 | rs650558 | T | C | 0.247918 | 0.020736 | 0.003508 | 3.40E-09 | 34.9433 |
| 88 | rs1893659 | A | C | 0.459939 | -0.02933 | 0.003053 | 7.60E-22 | 92.26034 |
| 89 | rs5022348 | T | C | 0.40703 | 0.020264 | 0.00357 | 1.40E-08 | 32.21855 |
| 90 | rs2043677 | T | C | 0.145599 | 0.026113 | 0.004327 | 1.60E-09 | 36.41745 |
| 91 | rs9958320 | C | T | 0.153147 | 0.024855 | 0.004271 | 5.90E-09 | 33.86844 |
| 92 | rs62097995 | A | T | 0.423591 | 0.020002 | 0.003067 | 6.90E-11 | 42.53904 |
| 93 | rs2924321 | A | G | 0.539592 | -0.01951 | 0.00305 | 1.60E-10 | 40.92514 |
| 94 | rs4940926 | C | T | 0.735045 | -0.0191 | 0.003441 | 2.80E-08 | 30.8171 |
| 95 | rs838145 | A | G | 0.542982 | 0.021955 | 0.003055 | 6.70E-13 | 51.62942 |
| 96 | rs6030200 | A | G | 0.31415 | -0.01953 | 0.003271 | 2.40E-09 | 35.65047 |
| 97 | rs11700855 | G | A | 0.093465 | -0.0298 | 0.005233 | 1.20E-08 | 32.41892 |
| 98 | rs71651683 | T | C | 0.0142 | -0.07046 | 0.012791 | 3.60E-08 | 30.34519 |
| 99 | rs1894544 | C | G | 0.454379 | 0.017393 | 0.003046 | 1.10E-08 | 32.60072 |

SNP: Single nucleotide polymorphisms; EAF: Effect allele frequency; SE：Standard error. F-statistics= (Effect/SE)2

a Effect size of each allele on genetically-determined alcohol intake frequency (times per week/ allele)

b Standard error of the genetic association of each effect allele with genetically-determined alcohol intake frequency

## Table S9. Characteristics of SNPs used as instrumental variables for genetically-determined sleep duration.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNP | Effect allele | Other allele | EAF | Zka | σZkb | *P*-value | F-statistics |
| 1 | rs915416 | G | C | 0.70906 | -0.01273 | 0.00176 | 4.80E-13 | 52.27667 |
| 2 | rs2186122 | T | A | 0.559911 | -0.01083 | 0.001621 | 2.30E-11 | 44.68473 |
| 3 | rs2279681 | G | C | 0.341785 | 0.009299 | 0.001685 | 3.40E-08 | 30.46195 |
| 4 | rs7517981 | C | T | 0.601498 | -0.00997 | 0.001634 | 1.10E-09 | 37.19776 |
| 5 | rs12567114 | A | G | 0.276368 | 0.012338 | 0.001794 | 6.10E-12 | 47.28244 |
| 6 | rs1463053 | A | G | 0.639694 | 0.00927 | 0.001661 | 2.40E-08 | 31.13223 |
| 7 | rs6681755 | A | G | 0.199783 | 0.011527 | 0.002005 | 9.00E-09 | 33.05427 |
| 8 | rs374153 | T | C | 0.842567 | -0.0131 | 0.002197 | 2.50E-09 | 35.54779 |
| 9 | rs2863957 | A | C | 0.220537 | 0.028904 | 0.001929 | 9.60E-51 | 224.4592 |
| 10 | rs1972712 | C | T | 0.249455 | 0.011796 | 0.001848 | 1.70E-10 | 40.76271 |
| 11 | rs72831782 | A | T | 0.269409 | -0.01018 | 0.001844 | 3.40E-08 | 30.48996 |
| 12 | rs2683630 | G | C | 0.629076 | 0.014951 | 0.001656 | 1.70E-19 | 81.55656 |
| 13 | rs75539574 | C | A | 0.085774 | 0.023665 | 0.002874 | 1.80E-16 | 67.78963 |
| 14 | rs35662245 | A | T | 0.338713 | 0.010157 | 0.001691 | 1.90E-09 | 36.08806 |
| 15 | rs6783516 | T | G | 0.583817 | -0.00984 | 0.001631 | 1.60E-09 | 36.37506 |
| 16 | rs76258078 | G | A | 0.049994 | -0.02169 | 0.003681 | 3.80E-09 | 34.70532 |
| 17 | rs113021516 | C | G | 0.335898 | 0.011481 | 0.001697 | 1.30E-11 | 45.75571 |
| 18 | rs17732997 | G | C | 0.429679 | -0.00884 | 0.001618 | 4.60E-08 | 29.85779 |
| 19 | rs9810474 | T | C | 0.232184 | -0.01115 | 0.001894 | 3.90E-09 | 34.68591 |
| 20 | rs7644809 | C | T | 0.576033 | -0.01015 | 0.001625 | 4.10E-10 | 39.04384 |
| 21 | rs13107325 | T | C | 0.074905 | -0.02427 | 0.003039 | 1.40E-15 | 63.76732 |
| 22 | rs2192528 | G | A | 0.522493 | -0.00981 | 0.001601 | 9.10E-10 | 37.50263 |
| 23 | rs2839753 | C | T | 0.265347 | -0.01064 | 0.001812 | 4.40E-09 | 34.44163 |
| 24 | rs7711696 | T | G | 0.304987 | -0.00987 | 0.001735 | 1.30E-08 | 32.33131 |
| 25 | rs12518468 | C | T | 0.328685 | -0.01064 | 0.001703 | 4.10E-10 | 39.06617 |
| 26 | rs365663 | G | A | 0.45495 | -0.00928 | 0.00161 | 8.10E-09 | 33.24589 |
| 27 | rs6889592 | A | G | 0.332608 | 0.011766 | 0.001697 | 4.10E-12 | 48.06987 |
| 28 | rs151014368 | A | G | 0.20734 | 0.011379 | 0.001988 | 1.00E-08 | 32.75743 |
| 29 | rs9382445 | C | T | 0.375168 | -0.00948 | 0.001649 | 8.90E-09 | 33.07661 |
| 30 | rs1611719 | A | G | 0.209698 | -0.01321 | 0.002027 | 7.10E-11 | 42.50004 |
| 31 | rs113113059 | C | T | 0.219834 | -0.01113 | 0.001933 | 8.60E-09 | 33.12921 |
| 32 | rs7740402 | G | T | 0.3061 | -0.00951 | 0.001735 | 4.10E-08 | 30.09031 |
| 33 | rs9345234 | C | A | 0.57786 | 0.009192 | 0.001624 | 1.50E-08 | 32.05745 |
| 34 | rs34556183 | G | A | 0.279888 | -0.01335 | 0.001782 | 6.60E-14 | 56.18077 |
| 35 | rs11982852 | T | C | 0.243858 | -0.01173 | 0.001862 | 3.10E-10 | 39.63641 |
| 36 | rs62444917 | C | A | 0.222315 | 0.012963 | 0.001926 | 1.70E-11 | 45.29037 |
| 37 | rs2079070 | G | C | 0.734582 | -0.01344 | 0.001811 | 1.20E-13 | 55.05182 |
| 38 | rs7831557 | A | G | 0.517438 | -0.01057 | 0.001601 | 4.20E-11 | 43.53272 |
| 39 | rs7016314 | C | T | 0.655927 | 0.010001 | 0.001688 | 3.10E-09 | 35.09354 |
| 40 | rs17391944 | G | T | 0.04986 | 0.021852 | 0.003724 | 4.40E-09 | 34.43123 |
| 41 | rs112100783 | A | G | 0.033439 | -0.02529 | 0.004549 | 2.70E-08 | 30.9259 |
| 42 | rs10510128 | A | G | 0.207951 | 0.011403 | 0.001974 | 7.70E-09 | 33.35917 |
| 43 | rs2236295 | T | G | 0.403043 | -0.00908 | 0.001636 | 2.90E-08 | 30.76193 |
| 44 | rs1517572 | C | A | 0.581256 | 0.011659 | 0.001622 | 6.50E-13 | 51.67849 |
| 45 | rs7115856 | C | A | 0.461273 | 0.010819 | 0.001603 | 1.50E-11 | 45.56391 |
| 46 | rs11039216 | T | C | 0.532944 | -0.01028 | 0.001604 | 1.50E-10 | 41.06165 |
| 47 | rs2734831 | G | T | 0.606881 | -0.0098 | 0.001639 | 2.20E-09 | 35.75172 |
| 48 | rs174564 | G | A | 0.348602 | 0.009745 | 0.001678 | 6.30E-09 | 33.72951 |
| 49 | rs1939455 | T | G | 0.120291 | -0.0158 | 0.002517 | 3.50E-10 | 39.39315 |
| 50 | rs1553132 | G | A | 0.258638 | 0.010526 | 0.001825 | 8.10E-09 | 33.2532 |
| 51 | rs34354917 | A | C | 0.288625 | -0.01002 | 0.001768 | 1.40E-08 | 32.12088 |
| 52 | rs4767550 | G | A | 0.413171 | 0.010873 | 0.001633 | 2.70E-11 | 44.35411 |
| 53 | rs6561715 | A | T | 0.630636 | 0.009782 | 0.001661 | 3.90E-09 | 34.68536 |
| 54 | rs55658675 | T | C | 0.352906 | -0.00969 | 0.001675 | 7.10E-09 | 33.51381 |
| 55 | rs11621908 | T | C | 0.082807 | -0.01999 | 0.002943 | 1.10E-11 | 46.10501 |
| 56 | rs2748809 | C | T | 0.429258 | -0.00925 | 0.001645 | 1.90E-08 | 31.62421 |
| 57 | rs8038326 | G | A | 0.273169 | -0.01338 | 0.001793 | 8.40E-14 | 55.71152 |
| 58 | rs56367859 | G | A | 0.397585 | 0.011622 | 0.001636 | 1.20E-12 | 50.47308 |
| 59 | rs9302680 | A | G | 0.439272 | 0.012044 | 0.001611 | 7.60E-14 | 55.91176 |
| 60 | rs11643715 | G | C | 0.292625 | 0.010949 | 0.00176 | 5.00E-10 | 38.68786 |
| 61 | rs8047587 | T | G | 0.439514 | -0.01102 | 0.001613 | 8.30E-12 | 46.68423 |
| 62 | rs72771082 | G | A | 0.217832 | 0.010974 | 0.001936 | 1.40E-08 | 32.13451 |
| 63 | rs8074498 | A | T | 0.580951 | -0.00933 | 0.001634 | 1.10E-08 | 32.59478 |
| 64 | rs11650677 | A | G | 0.339185 | 0.01117 | 0.00169 | 3.80E-11 | 43.70498 |
| 65 | rs9903898 | T | C | 0.488883 | -0.00945 | 0.001601 | 3.60E-09 | 34.82573 |
| 66 | rs8072993 | G | T | 0.635677 | 0.010922 | 0.001992 | 4.20E-08 | 30.04916 |
| 67 | rs1348047 | T | G | 0.267253 | -0.01264 | 0.00182 | 3.80E-12 | 48.22308 |
| 68 | rs35126035 | C | A | 0.55833 | -0.0092 | 0.001644 | 2.20E-08 | 31.2943 |
| 69 | rs34786000 | T | G | 0.553361 | 0.010958 | 0.001628 | 1.70E-11 | 45.30973 |
| 70 | rs2072727 | C | T | 0.56459 | -0.00927 | 0.001614 | 9.30E-09 | 32.98056 |
| 71 | rs9611007 | T | C | 0.141673 | -0.01359 | 0.002297 | 3.30E-09 | 35.01711 |

SNP: Single nucleotide polymorphisms; EAF: Effect allele frequency; SE：Standard error. F-statistics= (Effect/SE)2

a Effect size of each allele on genetically-determined sleep duration (hours per allele)

b Standard error of the genetic association of each effect allele with genetically-determined sleep duration

## Table S10. Characteristics of SNPs used as instrumental variables for genetically-determined WHR.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNP | Effect allele | Other allele | EAF | Zka | σZkb | *P*-value | F-statistics |
| 1 | rs4846565 | A | G | 0.3333 | -0.048 | 0.0046 | 3.70E-25 | 108.8847 |
| 2 | rs4471313 | T | G | 0.7232 | 0.03 | 0.0052 | 7.50E-09 | 33.28402 |
| 3 | rs2765539 | T | C | 0.7083 | 0.031 | 0.005 | 2.80E-10 | 38.44 |
| 4 | rs10195252 | C | T | 0.4417 | -0.044 | 0.0044 | 1.00E-23 | 100 |
| 5 | rs17819328 | G | T | 0.45 | 0.032 | 0.0046 | 1.80E-12 | 48.39319 |
| 6 | rs9860730 | G | A | 0.2333 | -0.042 | 0.0048 | 3.80E-18 | 76.5625 |
| 7 | rs10804591 | A | C | 0.85 | 0.035 | 0.0054 | 1.20E-10 | 42.0096 |
| 8 | rs9687846 | A | G | 0.1917 | 0.034 | 0.0057 | 3.40E-09 | 35.58018 |
| 9 | rs1045241 | T | C | 0.3083 | -0.027 | 0.0049 | 3.50E-08 | 30.36235 |
| 10 | rs1936805 | T | C | 0.55 | 0.044 | 0.0044 | 7.00E-24 | 100 |
| 11 | rs1358980 | T | C | 0.45 | 0.049 | 0.0048 | 2.40E-24 | 104.2101 |
| 12 | rs1294421 | G | T | 0.6 | 0.033 | 0.0046 | 8.30E-13 | 51.46503 |
| 13 | rs3902751 | A | G | 0.225 | 0.032 | 0.0051 | 6.40E-10 | 39.36947 |
| 14 | rs12679556 | G | T | 0.2083 | 0.03 | 0.0052 | 7.40E-09 | 33.28402 |
| 15 | rs11989744 | T | C | 0.2583 | -0.035 | 0.0061 | 5.40E-09 | 32.92126 |
| 16 | rs1394461 | C | G | 0.2583 | 0.035 | 0.0063 | 3.60E-08 | 30.8642 |
| 17 | rs863750 | T | C | 0.5333 | 0.027 | 0.0045 | 1.00E-09 | 36 |
| 18 | rs11048470 | T | G | 0.2333 | 0.033 | 0.0049 | 1.90E-11 | 45.3561 |
| 19 | rs1443512 | C | A | 0.8 | -0.037 | 0.0051 | 2.40E-13 | 52.6336 |
| 20 | rs11075985 | A | C | 0.4833 | 0.039 | 0.0045 | 5.00E-18 | 75.11111 |
| 21 | rs4646404 | A | G | 0.375 | -0.03 | 0.0051 | 3.10E-09 | 34.60208 |
| 22 | rs489693 | A | C | 0.4083 | 0.029 | 0.0047 | 1.00E-09 | 38.07153 |
| 23 | rs2179129 | G | A | 0.45 | -0.026 | 0.0045 | 1.20E-08 | 33.38272 |

SNPs: Single nucleotide polymorphisms; WHR: Waist-to-hip ratio; EAF: Effect allele frequency; SE：Standard error. F-statistics= (Effect/SE)2

a Effect size of each allele on genetically-determined WHR (percentage point/ allele)

b Standard error of the genetic association of each effect allele with genetically-determined WHR

## Table S11. Characteristics of SNPs used as instrumental variables for genetically-determined FBG.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNP | Effect allele | Other allele | EAF | Zka | σZkb | *P*-value | F-statistics |
| 1 | rs780093 | C | T | 0.606 | 0.027 | 0.0037 | 2.91E-13 | 53.25055 |
| 2 | rs560887 | C | T | 0.674 | 0.075 | 0.0041 | 4.61E-75 | 334.6222 |
| 3 | rs11717195 | C | T | 0.77 | -0.029 | 0.0047 | 1.11E-09 | 38.07153 |
| 4 | rs2191349 | T | G | 0.467 | 0.03 | 0.0036 | 7.83E-17 | 69.44444 |
| 5 | rs10276674 | C | T | 0.836 | 0.036 | 0.0051 | 1.75E-12 | 49.82699 |
| 6 | rs6975024 | C | T | 0.8 | 0.062 | 0.0049 | 5.54E-37 | 160.1 |
| 7 | rs11558471 | G | A | 0.748 | -0.027 | 0.004 | 2.62E-11 | 45.5625 |
| 8 | rs4506565 | T | A | 0.704 | 0.023 | 0.004 | 1.24E-08 | 33.0625 |
| 9 | rs10787312 | A | G | 0.078 | 0.042 | 0.0062 | 1.15E-11 | 45.8897 |
| 10 | rs7944584 | T | A | 0.712 | -0.025 | 0.0041 | 1.47E-09 | 37.18025 |
| 11 | rs2524299 | T | A | 0.892 | -0.03 | 0.0052 | 3.60E-09 | 33.28402 |
| 12 | rs10830963 | G | C | 0.7 | 0.079 | 0.0045 | 1.26E-68 | 308.1975 |
| 13 | rs12805422 | A | G | 0.5 | -0.023 | 0.0037 | 1.18E-09 | 38.64134 |
| 14 | rs17390909 | G | C | 0.883 | -0.037 | 0.0067 | 3.40E-08 | 30.49677 |

SNP: Single nucleotide polymorphisms; FBG: Fasting blood glucose; EAF: Effect allele frequency; SE：Standard error. F-statistics= (Effect/SE)2

a Effect size of each allele on genetically-determined FBG (mmol/l per allele)

b Standard error of the genetic association of each effect allele with genetically-determined FBG

## Table S12. Characteristics of SNPs used as instrumental variables for genetically-determined HDL.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNP | Effect allele | Other allele | EAF | Zka | σZkb | *P*-value | F-statistics |
| 1 | rs6544366 | T | G | 0.267874 | 0.064093 | 0.011001 | 8.14E-09 | 33.94352 |
| 2 | rs59347135 | G | C | 0.043114 | -0.16729 | 0.028587 | 6.99E-09 | 34.24585 |
| 3 | rs291 | C | T | 0.231014 | 0.10065 | 0.011676 | 1.45E-17 | 74.30865 |
| 4 | rs1883025 | T | C | 0.193654 | -0.07216 | 0.012455 | 9.85E-09 | 33.56274 |
| 5 | rs174583 | T | C | 0.392152 | -0.07783 | 0.010132 | 2.92E-14 | 59.00854 |
| 6 | rs964184 | C | G | 0.861774 | 0.081863 | 0.014048 | 8.07E-09 | 33.95833 |
| 7 | rs67053123 | A | T | 0.148501 | 0.092051 | 0.014556 | 3.90E-10 | 39.99198 |
| 8 | rs261291 | C | T | 0.373198 | 0.179384 | 0.010165 | 2.39E-68 | 311.4244 |
| 9 | rs60439253 | T | C | 0.035228 | 0.235306 | 0.028232 | 1.61E-16 | 69.46767 |
| 10 | rs11632618 | A | G | 0.059603 | 0.215139 | 0.023086 | 2.90E-20 | 86.84422 |
| 11 | rs111543310 | C | T | 0.015958 | 0.337634 | 0.048705 | 6.88E-12 | 48.05574 |
| 12 | rs247617 | A | C | 0.297513 | 0.209633 | 0.01079 | 1.93E-82 | 377.4648 |
| 13 | rs6507939 | C | A | 0.843394 | 0.094757 | 0.013468 | 3.34E-12 | 49.50128 |
| 14 | rs429358 | C | T | 0.169994 | -0.09155 | 0.013419 | 1.46E-11 | 46.54841 |
| 15 | rs6065904 | A | G | 0.228686 | -0.13534 | 0.011671 | 1.72E-30 | 134.4694 |

SNP: Single nucleotide polymorphisms; HDL: High-density lipoprotein; EAF: Effect allele frequency; SE：Standard error. F-statistics= (Effect/SE)2

a Effect size of each allele on genetically-determined HDL (mmol/l per allele)

b Standard error of the genetic association of each effect allele with genetically-determined HDL

## Table S13. Characteristics of SNPs used as instrumental variables for genetically-determined age that started HRT.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNP | Effect allele | Other allele | EAF | Zka | σZkb | *P*-value | F-statistics |
| 1 | rs4532801 | G | T | 0.681815 | -0.03639 | 0.005081 | 8.00E-13 | 51.28849 |
| 2 | rs6760857 | A | G | 0.105071 | -0.04644 | 0.007732 | 1.90E-09 | 36.06509 |
| 3 | rs6760293 | T | A | 0.622675 | 0.028591 | 0.004889 | 5.00E-09 | 34.19953 |
| 4 | rs3774751 | T | G | 0.45985 | 0.029578 | 0.00477 | 5.60E-10 | 38.44701 |
| 5 | rs4235062 | A | G | 0.516176 | 0.033026 | 0.004755 | 3.80E-12 | 48.24565 |
| 6 | rs12503643 | T | G | 0.396197 | 0.028498 | 0.004856 | 4.40E-09 | 34.44714 |
| 7 | rs3765637 | T | A | 0.230577 | -0.03465 | 0.005628 | 7.40E-10 | 37.91105 |
| 8 | rs274721 | T | C | 0.379393 | -0.02823 | 0.004877 | 7.10E-09 | 33.51283 |
| 9 | rs251848 | A | G | 0.476717 | 0.031416 | 0.004847 | 9.10E-11 | 42.00133 |
| 10 | rs9348724 | G | C | 0.82855 | -0.03823 | 0.00636 | 1.80E-09 | 36.13356 |
| 11 | rs2844466 | C | T | 0.358737 | -0.03535 | 0.004944 | 8.60E-13 | 51.13631 |
| 12 | rs75779608 | T | C | 0.20262 | -0.03283 | 0.005893 | 2.50E-08 | 31.04451 |
| 13 | rs28797500 | C | T | 0.780783 | -0.04301 | 0.005733 | 6.30E-14 | 56.2833 |
| 14 | rs6980805 | C | G | 0.606067 | 0.028853 | 0.004865 | 3.00E-09 | 35.17361 |
| 15 | rs75770066 | G | A | 0.031184 | 0.103467 | 0.013594 | 2.70E-14 | 57.93161 |
| 16 | rs77100210 | C | A | 0.051122 | 0.059315 | 0.010869 | 4.80E-08 | 29.78357 |
| 17 | rs7994166 | T | C | 0.464875 | 0.028464 | 0.004768 | 2.40E-09 | 35.63745 |
| 18 | rs177404 | C | G | 0.687941 | -0.02959 | 0.005308 | 2.50E-08 | 31.0801 |
| 19 | rs6496571 | C | A | 0.382323 | -0.02835 | 0.004878 | 6.10E-09 | 33.78882 |
| 20 | rs3743590 | A | C | 0.62112 | -0.03746 | 0.004893 | 1.90E-14 | 58.61121 |
| 21 | rs732084 | C | A | 0.668218 | 0.030272 | 0.005055 | 2.10E-09 | 35.85862 |
| 22 | rs11668344 | G | A | 0.365523 | -0.05402 | 0.004908 | 3.60E-28 | 121.1351 |
| 23 | rs2013097 | C | T | 0.443981 | -0.02684 | 0.004801 | 2.30E-08 | 31.23801 |
| 24 | rs16991615 | A | G | 0.061184 | 0.105051 | 0.009857 | 1.60E-26 | 113.581 |

SNP: Single nucleotide polymorphisms; HRT: Hormone-replacement therapy; EAF: Effect allele frequency; SE：Standard error. F-statistics= (Effect/SE)2

a Effect size of each allele on genetically-determined age that started HRT (years/allele)

b Standard error of the genetic association of each effect allele with genetically-determined age that started HRT

Table S14. Genetic estimates for the association of genetically predicted AAM with genetically-determined current smoking behavior.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Xka | σXkb | Zkc | σZkd |
| 1 | rs10144321 | G | -0.042 | 0.006618 | -0.00073 | 0.001572 |
| 2 | rs10483727 | C | -0.037 | 0.005785 | 0.001966 | 0.001357 |
| 3 | rs1079866 | G | 0.072 | 0.008444 | -0.00341 | 0.001948 |
| 4 | rs10840031 | A | 0.038 | 0.006406 | 0.003858 | 0.001429 |
| 5 | rs10938397 | G | -0.038 | 0.005923 | -0.00247 | 0.001336 |
| 6 | rs11022756 | C | -0.048 | 0.006481 | -0.00104 | 0.001458 |
| 7 | rs11715566 | T | 0.052 | 0.005631 | -0.00053 | 0.001322 |
| 8 | rs11756454 | A | 0.034 | 0.005703 | 0.001462 | 0.00133 |
| 9 | rs11767400 | A | 0.035 | 0.006295 | 0.003383 | 0.001437 |
| 10 | rs12003641 | T | 0.082 | 0.010555 | 0.002771 | 0.002398 |
| 11 | rs12148769 | A | -0.055 | 0.009752 | 0.000276 | 0.002141 |
| 12 | rs12291726 | G | 0.057 | 0.008333 | 0.000222 | 0.001802 |
| 13 | rs12598642 | G | 0.044 | 0.005681 | -0.0031 | 0.001342 |
| 14 | rs12915845 | T | -0.035 | 0.005729 | 0.000366 | 0.001339 |
| 15 | rs13179411 | T | 0.06 | 0.007813 | -0.00316 | 0.00185 |
| 16 | rs13215865 | T | -0.042 | 0.007472 | 0.004965 | 0.00165 |
| 17 | rs1398217 | C | 0.046 | 0.005767 | -0.00093 | 0.001335 |
| 18 | rs1482853 | A | -0.038 | 0.006043 | 0.002708 | 0.001354 |
| 19 | rs1516883 | A | -0.091 | 0.002455 | 0.005914 | 0.001427 |
| 20 | rs1518080 | G | -0.051 | 0.006004 | 0.000337 | 0.001383 |
| 21 | rs1659127 | A | 0.044 | 0.006372 | -0.00197 | 0.001405 |
| 22 | rs16938437 | T | -0.067 | 0.010348 | -0.00034 | 0.002287 |
| 23 | rs17351680 | G | 0.044 | 0.007557 | 0.000494 | 0.001815 |
| 24 | rs1874984 | C | 0.037 | 0.006005 | 0.000137 | 0.00132 |
| 25 | rs2153127 | C | -0.077 | 0.002077 | -0.00094 | 0.001325 |
| 26 | rs2179786 | T | -0.039 | 0.00572 | -0.00119 | 0.001339 |
| 27 | rs2184968 | C | -0.036 | 0.005672 | -0.00099 | 0.001327 |
| 28 | rs2303100 | T | 0.038 | 0.005684 | 0.002517 | 0.001328 |
| 29 | rs2344508 | A | 0.034 | 0.005747 | -0.00417 | 0.001333 |
| 30 | rs2617056 | T | -0.036 | 0.005933 | 0.002932 | 0.001353 |
| 31 | rs2687729 | G | 0.044 | 0.006575 | -0.00239 | 0.001497 |
| 32 | rs2836950 | G | -0.035 | 0.006206 | -0.00043 | 0.00138 |
| 33 | rs2947411 | G | -0.052 | 0.007655 | 0.006326 | 0.00174 |
| 34 | rs3115627 | G | 0.038 | 0.006453 | 0.000256 | 0.001395 |
| 35 | rs3733632 | G | 0.049 | 0.007862 | -0.00221 | 0.001848 |
| 36 | rs3743266 | C | -0.045 | 0.006233 | -0.00038 | 0.001405 |
| 37 | rs3870341 | G | -0.043 | 0.006449 | -0.00524 | 0.001507 |
| 38 | rs3914188 | C | 0.044 | 0.006702 | 0.000146 | 0.001493 |
| 39 | rs4242496 | A | -0.033 | 0.005696 | 0.001219 | 0.001335 |
| 40 | rs4369815 | G | -0.08 | 0.011888 | 0.002678 | 0.002666 |
| 41 | rs466639 | C | 0.075 | 0.008706 | -0.00269 | 0.001996 |
| 42 | rs4801589 | G | 0.032 | 0.005628 | 0.000591 | 0.001324 |
| 43 | rs4840086 | G | -0.036 | 0.00562 | -0.0022 | 0.001333 |
| 44 | rs618678 | T | -0.034 | 0.006148 | -0.00491 | 0.001408 |
| 45 | rs633715 | C | -0.051 | 0.00725 | 0.001832 | 0.001612 |
| 46 | rs6694738 | A | -0.044 | 0.007885 | -0.00684 | 0.001892 |
| 47 | rs6747380 | A | 0.065 | 0.007658 | 0.003059 | 0.001769 |
| 48 | rs6758290 | C | -0.04 | 0.006322 | 0.000464 | 0.001326 |
| 49 | rs6770162 | A | 0.036 | 0.005733 | 0.000472 | 0.001326 |
| 50 | rs6933660 | A | -0.036 | 0.006331 | -0.00163 | 0.001428 |
| 51 | rs7103411 | T | -0.043 | 0.007056 | 0.00514 | 0.001625 |
| 52 | rs7119712 | A | -0.041 | 0.006445 | 0.001066 | 0.001514 |
| 53 | rs740077 | C | -0.046 | 0.007045 | -0.00319 | 0.001642 |
| 54 | rs7642134 | G | 0.038 | 0.005912 | -0.00157 | 0.001362 |
| 55 | rs7821178 | A | -0.045 | 0.006196 | 0.002476 | 0.001397 |
| 56 | rs7853970 | C | -0.037 | 0.00626 | 0.004275 | 0.001338 |
| 57 | rs7944630 | A | 0.047 | 0.005728 | -0.00108 | 0.001342 |
| 58 | rs852069 | G | 0.036 | 0.005907 | -0.0008 | 0.001378 |
| 59 | rs888345 | A | -0.044 | 0.007315 | 0.002803 | 0.001672 |
| 60 | rs895526 | C | 0.044 | 0.007553 | -0.00486 | 0.00169 |
| 61 | rs913588 | A | -0.034 | 0.005683 | 0.00114 | 0.001321 |
| 62 | rs9373571 | A | 0.034 | 0.005926 | -0.00191 | 0.001329 |
| 63 | rs9555810 | G | 0.047 | 0.006492 | -0.00154 | 0.001461 |
| 64 | rs9565073 | C | 0.034 | 0.005881 | 0.001269 | 0.001333 |
| 65 | rs9635759 | A | 0.058 | 0.006362 | -0.00123 | 0.001467 |
| 66 | rs9647570 | G | 0.046 | 0.008427 | -0.00137 | 0.001908 |
| 67 | rs9939609 | A | -0.042 | 0.00572 | -0.00053 | 0.001353 |
| 68 | rs9997604 | C | 0.039 | 0.006511 | -0.00132 | 0.001489 |

AAM: Age at menarche; SNPs: Single nucleotide polymorphisms.

a Effect size per allele in AAM (in years)

b Standard error of the genetic association of each effect allele with genetically predicted AAM

c Effect size of each allele on genetically-determined current smoking behavior (pack-years per allele)

d Standard error of the genetic association of each effect allele with genetically-determined current smoking behavior

Table S15. Genetic estimates for the association of genetically predicted AAM with genetically-determined HbA1c.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Xka | σXkb | Zkc | σZkd |
| 1 | rs10144321 | G | -0.042 | 0.006618 | 0.005119 | 0.018249 |
| 2 | rs10483727 | C | -0.037 | 0.005785 | 0.007035 | 0.015756 |
| 3 | rs1079866 | G | 0.072 | 0.008444 | 0.024514 | 0.022608 |
| 4 | rs10840031 | A | 0.038 | 0.006406 | -0.04251 | 0.016581 |
| 5 | rs10938397 | G | -0.038 | 0.005923 | 0.039826 | 0.015508 |
| 6 | rs11022756 | C | -0.048 | 0.006481 | 0.019009 | 0.016921 |
| 7 | rs11715566 | T | 0.052 | 0.005631 | 0.009609 | 0.015349 |
| 8 | rs11756454 | A | 0.034 | 0.005703 | -0.01029 | 0.015437 |
| 9 | rs11767400 | A | 0.035 | 0.006295 | 0.012447 | 0.016671 |
| 10 | rs12003641 | T | 0.082 | 0.010555 | 0.038036 | 0.02794 |
| 11 | rs12148769 | A | -0.055 | 0.009752 | -0.0097 | 0.024886 |
| 12 | rs12291726 | G | 0.057 | 0.008333 | -0.08928 | 0.020919 |
| 13 | rs12598642 | G | 0.044 | 0.005681 | -0.08606 | 0.015588 |
| 14 | rs12915845 | T | -0.035 | 0.005729 | -0.00497 | 0.015546 |
| 15 | rs13179411 | T | 0.06 | 0.007813 | 0.040774 | 0.021464 |
| 16 | rs13215865 | T | -0.042 | 0.007472 | -0.0073 | 0.019148 |
| 17 | rs1398217 | C | 0.046 | 0.005767 | -0.02294 | 0.015504 |
| 18 | rs1482853 | A | -0.038 | 0.006043 | -0.00617 | 0.015737 |
| 19 | rs1516883 | A | -0.091 | 0.002455 | 0.031453 | 0.016582 |
| 20 | rs1518080 | G | -0.051 | 0.006004 | -0.01873 | 0.016055 |
| 21 | rs1659127 | A | 0.044 | 0.006372 | -0.00959 | 0.016316 |
| 22 | rs16938437 | T | -0.067 | 0.010348 | -0.03637 | 0.026587 |
| 23 | rs17351680 | G | 0.044 | 0.007557 | -0.03783 | 0.021084 |
| 24 | rs1874984 | C | 0.037 | 0.006005 | 0.022379 | 0.015326 |
| 25 | rs2153127 | C | -0.077 | 0.002077 | -0.01583 | 0.015387 |
| 26 | rs2179786 | T | -0.039 | 0.00572 | -0.03001 | 0.015543 |
| 27 | rs2184968 | C | -0.036 | 0.005672 | 0.10548 | 0.015411 |
| 28 | rs2303100 | T | 0.038 | 0.005684 | 0.008501 | 0.015415 |
| 29 | rs2344508 | A | 0.034 | 0.005747 | 0.001825 | 0.015474 |
| 30 | rs2617056 | T | -0.036 | 0.005933 | 0.011943 | 0.015704 |
| 31 | rs2687729 | G | 0.044 | 0.006575 | 0.033207 | 0.017381 |
| 32 | rs2836950 | G | -0.035 | 0.006206 | 0.03456 | 0.016009 |
| 33 | rs2947411 | G | -0.052 | 0.007655 | 0.085049 | 0.02021 |
| 34 | rs3115627 | G | 0.038 | 0.006453 | 0.011476 | 0.016213 |
| 35 | rs3733632 | G | 0.049 | 0.007862 | -0.04022 | 0.021453 |
| 36 | rs3743266 | C | -0.045 | 0.006233 | -0.00682 | 0.016309 |
| 37 | rs3870341 | G | -0.043 | 0.006449 | 0.12777 | 0.017514 |
| 38 | rs3914188 | C | 0.044 | 0.006702 | -0.03788 | 0.017418 |
| 39 | rs4242496 | A | -0.033 | 0.005696 | -0.02322 | 0.015502 |
| 40 | rs4369815 | G | -0.08 | 0.011888 | -0.01436 | 0.030921 |
| 41 | rs466639 | C | 0.075 | 0.008706 | 0.002469 | 0.023231 |
| 42 | rs4801589 | G | 0.032 | 0.005628 | -0.03406 | 0.015372 |
| 43 | rs4840086 | G | -0.036 | 0.00562 | -0.00207 | 0.015488 |
| 44 | rs618678 | T | -0.034 | 0.006148 | -0.01053 | 0.016347 |
| 45 | rs633715 | C | -0.051 | 0.00725 | 0.047268 | 0.018726 |
| 46 | rs6694738 | A | -0.044 | 0.007885 | -0.00257 | 0.021988 |
| 47 | rs6747380 | A | 0.065 | 0.007658 | 0.036375 | 0.020554 |
| 48 | rs6758290 | C | -0.04 | 0.006322 | 0.016483 | 0.015393 |
| 49 | rs6770162 | A | 0.036 | 0.005733 | 0.010954 | 0.015394 |
| 50 | rs6933660 | A | -0.036 | 0.006331 | -0.00257 | 0.01657 |
| 51 | rs7103411 | T | -0.043 | 0.007056 | 0.059411 | 0.018892 |
| 52 | rs7119712 | A | -0.041 | 0.006445 | 0.007097 | 0.017618 |
| 53 | rs740077 | C | -0.046 | 0.007045 | 0.036143 | 0.019084 |
| 54 | rs7642134 | G | 0.038 | 0.005912 | 0.010299 | 0.015809 |
| 55 | rs7821178 | A | -0.045 | 0.006196 | -0.01094 | 0.016225 |
| 56 | rs7853970 | C | -0.037 | 0.00626 | 0.036013 | 0.015543 |
| 57 | rs7944630 | A | 0.047 | 0.005728 | 0.024113 | 0.015582 |
| 58 | rs852069 | G | 0.036 | 0.005907 | 0.000734 | 0.015994 |
| 59 | rs888345 | A | -0.044 | 0.007315 | 0.02875 | 0.01944 |
| 60 | rs895526 | C | 0.044 | 0.007553 | -0.04848 | 0.019653 |
| 61 | rs913588 | A | -0.034 | 0.005683 | 0.011924 | 0.015334 |
| 62 | rs9373571 | A | 0.034 | 0.005926 | -0.00597 | 0.015425 |
| 63 | rs9555810 | G | 0.047 | 0.006492 | -0.0225 | 0.016951 |
| 64 | rs9565073 | C | 0.034 | 0.005881 | -0.03196 | 0.01548 |
| 65 | rs9635759 | A | 0.058 | 0.006362 | 0.000303 | 0.017013 |
| 66 | rs9647570 | G | 0.046 | 0.008427 | -0.01043 | 0.022107 |
| 67 | rs9939609 | A | -0.042 | 0.00572 | 0.1502 | 0.015703 |
| 68 | rs9997604 | C | 0.039 | 0.006511 | -0.02668 | 0.017283 |

AAM: Age at menarche; HbA1c: Hemoglobin A1c; SNPs: Single nucleotide polymorphisms.

a Effect size per allele in AAM (in years)

b Standard error of the genetic association of each effect allele with genetically predicted AAM

c Effect size of each allele on genetically-determined HbA1c (percentage point per allele)

d Standard error of the genetic association of each effect allele with genetically-determined HbA1c

Table S16. Genetic estimates for the association of genetically predicted AAM with genetically-determined SBP.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Xka | σXkb | Zkc | σZkd |
| 1 | rs10144321 | G | -0.042 | 0.006618 | 0.000506 | 0.002924 |
| 2 | rs10483727 | C | -0.037 | 0.005785 | -0.00786 | 0.002527 |
| 3 | rs1079866 | G | 0.072 | 0.008444 | -0.00013 | 0.003629 |
| 4 | rs10840031 | A | 0.038 | 0.006406 | -0.01064 | 0.002659 |
| 5 | rs10938397 | G | -0.038 | 0.005923 | 0.004309 | 0.002487 |
| 6 | rs11022756 | C | -0.048 | 0.006481 | 0.011908 | 0.002715 |
| 7 | rs11715566 | T | 0.052 | 0.005631 | 0.005521 | 0.002462 |
| 8 | rs11756454 | A | 0.034 | 0.005703 | -0.00201 | 0.002475 |
| 9 | rs11767400 | A | 0.035 | 0.006295 | 0.001564 | 0.002675 |
| 10 | rs12003641 | T | 0.082 | 0.010555 | -0.0007 | 0.00446 |
| 11 | rs12148769 | A | -0.055 | 0.009752 | 0.001773 | 0.003987 |
| 12 | rs12291726 | G | 0.057 | 0.008333 | -0.00535 | 0.003358 |
| 13 | rs12598642 | G | 0.044 | 0.005681 | -0.00191 | 0.002497 |
| 14 | rs12915845 | T | -0.035 | 0.005729 | 0.00864 | 0.002494 |
| 15 | rs13179411 | T | 0.06 | 0.007813 | -0.00619 | 0.003447 |
| 16 | rs13215865 | T | -0.042 | 0.007472 | 0.002239 | 0.003071 |
| 17 | rs1398217 | C | 0.046 | 0.005767 | -0.0038 | 0.002486 |
| 18 | rs1482853 | A | -0.038 | 0.006043 | -0.00682 | 0.00252 |
| 19 | rs1516883 | A | -0.091 | 0.002455 | -0.00166 | 0.002655 |
| 20 | rs1518080 | G | -0.051 | 0.006004 | -0.00421 | 0.002574 |
| 21 | rs1659127 | A | 0.044 | 0.006372 | -0.00363 | 0.002616 |
| 22 | rs16938437 | T | -0.067 | 0.010348 | -0.01592 | 0.004254 |
| 23 | rs17351680 | G | 0.044 | 0.007557 | -0.00976 | 0.00338 |
| 24 | rs1874984 | C | 0.037 | 0.006005 | -0.00376 | 0.002456 |
| 25 | rs2153127 | C | -0.077 | 0.002077 | -0.00443 | 0.002465 |
| 26 | rs2179786 | T | -0.039 | 0.00572 | 0.00136 | 0.002491 |
| 27 | rs2184968 | C | -0.036 | 0.005672 | 0.002656 | 0.002472 |
| 28 | rs2303100 | T | 0.038 | 0.005684 | -0.0039 | 0.002472 |
| 29 | rs2344508 | A | 0.034 | 0.005747 | 0.002448 | 0.002483 |
| 30 | rs2617056 | T | -0.036 | 0.005933 | -0.00149 | 0.002518 |
| 31 | rs2687729 | G | 0.044 | 0.006575 | -0.00617 | 0.002787 |
| 32 | rs2836950 | G | -0.035 | 0.006206 | 0.001986 | 0.002569 |
| 33 | rs2947411 | G | -0.052 | 0.007655 | 0.016098 | 0.003239 |
| 34 | rs3115627 | G | 0.038 | 0.006453 | 0.002729 | 0.002596 |
| 35 | rs3733632 | G | 0.049 | 0.007862 | -0.00126 | 0.003438 |
| 36 | rs3743266 | C | -0.045 | 0.006233 | 0.001066 | 0.002616 |
| 37 | rs3870341 | G | -0.043 | 0.006449 | -0.00686 | 0.002805 |
| 38 | rs3914188 | C | 0.044 | 0.006702 | -0.00657 | 0.002779 |
| 39 | rs4242496 | A | -0.033 | 0.005696 | 0.002609 | 0.002485 |
| 40 | rs4369815 | G | -0.08 | 0.011888 | -0.00015 | 0.004961 |
| 41 | rs466639 | C | 0.075 | 0.008706 | -0.00325 | 0.003711 |
| 42 | rs4801589 | G | 0.032 | 0.005628 | 0.000434 | 0.002465 |
| 43 | rs4840086 | G | -0.036 | 0.00562 | 0.001213 | 0.002482 |
| 44 | rs618678 | T | -0.034 | 0.006148 | 0.00523 | 0.00262 |
| 45 | rs633715 | C | -0.051 | 0.00725 | 0.004275 | 0.003003 |
| 46 | rs6694738 | A | -0.044 | 0.007885 | -0.00408 | 0.003521 |
| 47 | rs6747380 | A | 0.065 | 0.007658 | -0.00011 | 0.003295 |
| 48 | rs6758290 | C | -0.04 | 0.006322 | -0.00453 | 0.002469 |
| 49 | rs6770162 | A | 0.036 | 0.005733 | 0.004957 | 0.002468 |
| 50 | rs6933660 | A | -0.036 | 0.006331 | 0.003538 | 0.002659 |
| 51 | rs7103411 | T | -0.043 | 0.007056 | -0.00342 | 0.003028 |
| 52 | rs7119712 | A | -0.041 | 0.006445 | 0.002661 | 0.002818 |
| 53 | rs740077 | C | -0.046 | 0.007045 | 0.005477 | 0.003052 |
| 54 | rs7642134 | G | 0.038 | 0.005912 | 0.000429 | 0.002535 |
| 55 | rs7821178 | A | -0.045 | 0.006196 | -0.00105 | 0.0026 |
| 56 | rs7853970 | C | -0.037 | 0.00626 | 0.000991 | 0.00249 |
| 57 | rs7944630 | A | 0.047 | 0.005728 | -0.00667 | 0.0025 |
| 58 | rs852069 | G | 0.036 | 0.005907 | -0.00174 | 0.002565 |
| 59 | rs888345 | A | -0.044 | 0.007315 | 0.00299 | 0.003109 |
| 60 | rs895526 | C | 0.044 | 0.007553 | -0.00118 | 0.003143 |
| 61 | rs913588 | A | -0.034 | 0.005683 | 0.00751 | 0.002457 |
| 62 | rs9373571 | A | 0.034 | 0.005926 | 0.001298 | 0.002475 |
| 63 | rs9555810 | G | 0.047 | 0.006492 | -0.00315 | 0.002719 |
| 64 | rs9565073 | C | 0.034 | 0.005881 | -0.00387 | 0.00248 |
| 65 | rs9635759 | A | 0.058 | 0.006362 | 0.002635 | 0.002731 |
| 66 | rs9647570 | G | 0.046 | 0.008427 | -0.00067 | 0.00355 |
| 67 | rs9939609 | A | -0.042 | 0.00572 | 0.009523 | 0.002519 |
| 68 | rs9997604 | C | 0.039 | 0.006511 | 0.006726 | 0.002772 |

AAM: Age at menarche; SBP: Systolic blood pressure; SNPs: Single nucleotide polymorphisms.

a Effect size per allele in AAM (in years)

b Standard error of the genetic association of each effect allele with genetically predicted AAM

c Effect size of each allele on genetically-determined SBP (mmHg per allele)

d Standard error of the genetic association of each effect allele with genetically-determined SBP

Table S17. Genetic estimates for the association of genetically predicted AAM with genetically-determined TG.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Xka | σXkb | Zkc | σZkd |
| 1 | rs10144321 | G | -0.042 | 0.006618 | -0.00456 | 0.00276 |
| 2 | rs10483727 | C | -0.037 | 0.005785 | 0.003553 | 0.002382 |
| 3 | rs1079866 | G | 0.072 | 0.008444 | -0.00722 | 0.003416 |
| 4 | rs10840031 | A | 0.038 | 0.006406 | -0.00351 | 0.002506 |
| 5 | rs10938397 | G | -0.038 | 0.005923 | -0.00175 | 0.002345 |
| 6 | rs11022756 | C | -0.048 | 0.006481 | 0.012954 | 0.002559 |
| 7 | rs11715566 | T | 0.052 | 0.005631 | -0.00635 | 0.002321 |
| 8 | rs11756454 | A | 0.034 | 0.005703 | 0.002398 | 0.002335 |
| 9 | rs11767400 | A | 0.035 | 0.006295 | 0.01044 | 0.00252 |
| 10 | rs12003641 | T | 0.082 | 0.010555 | -0.00542 | 0.004227 |
| 11 | rs12148769 | A | -0.055 | 0.009752 | -0.00087 | 0.003763 |
| 12 | rs12291726 | G | 0.057 | 0.008333 | -0.01792 | 0.003161 |
| 13 | rs12598642 | G | 0.044 | 0.005681 | -0.01762 | 0.002357 |
| 14 | rs12915845 | T | -0.035 | 0.005729 | 0.003798 | 0.002351 |
| 15 | rs13179411 | T | 0.06 | 0.007813 | 0.002173 | 0.003246 |
| 16 | rs13215865 | T | -0.042 | 0.007472 | 0.001691 | 0.002896 |
| 17 | rs1398217 | C | 0.046 | 0.005767 | -0.00047 | 0.002345 |
| 18 | rs1482853 | A | -0.038 | 0.006043 | -0.01618 | 0.002379 |
| 19 | rs1516883 | A | -0.091 | 0.002455 | 0.004665 | 0.002509 |
| 20 | rs1518080 | G | -0.051 | 0.006004 | 0.004652 | 0.002429 |
| 21 | rs1659127 | A | 0.044 | 0.006372 | 0.003358 | 0.002467 |
| 22 | rs16938437 | T | -0.067 | 0.010348 | -0.0053 | 0.004015 |
| 23 | rs17351680 | G | 0.044 | 0.007557 | -0.0078 | 0.003187 |
| 24 | rs1874984 | C | 0.037 | 0.006005 | -0.00106 | 0.002318 |
| 25 | rs2153127 | C | -0.077 | 0.002077 | -0.00173 | 0.002326 |
| 26 | rs2179786 | T | -0.039 | 0.00572 | -0.00283 | 0.002351 |
| 27 | rs2184968 | C | -0.036 | 0.005672 | -0.01373 | 0.002331 |
| 28 | rs2303100 | T | 0.038 | 0.005684 | 0.004141 | 0.002332 |
| 29 | rs2344508 | A | 0.034 | 0.005747 | 0.000764 | 0.00234 |
| 30 | rs2617056 | T | -0.036 | 0.005933 | 0.003369 | 0.002374 |
| 31 | rs2687729 | G | 0.044 | 0.006575 | -0.00016 | 0.00263 |
| 32 | rs2836950 | G | -0.035 | 0.006206 | 0.010947 | 0.002422 |
| 33 | rs2947411 | G | -0.052 | 0.007655 | 0.001788 | 0.003055 |
| 34 | rs3115627 | G | 0.038 | 0.006453 | 0.000873 | 0.002452 |
| 35 | rs3733632 | G | 0.049 | 0.007862 | 0.000262 | 0.003244 |
| 36 | rs3743266 | C | -0.045 | 0.006233 | 0.004181 | 0.002465 |
| 37 | rs3870341 | G | -0.043 | 0.006449 | 0.009642 | 0.00265 |
| 38 | rs3914188 | C | 0.044 | 0.006702 | -0.00458 | 0.002633 |
| 39 | rs4242496 | A | -0.033 | 0.005696 | -0.00443 | 0.002344 |
| 40 | rs4369815 | G | -0.08 | 0.011888 | 0.009008 | 0.004681 |
| 41 | rs466639 | C | 0.075 | 0.008706 | -0.00045 | 0.003512 |
| 42 | rs4801589 | G | 0.032 | 0.005628 | -0.0016 | 0.002325 |
| 43 | rs4840086 | G | -0.036 | 0.00562 | 0.00286 | 0.002344 |
| 44 | rs618678 | T | -0.034 | 0.006148 | -0.00079 | 0.002471 |
| 45 | rs633715 | C | -0.051 | 0.00725 | 0.000632 | 0.002832 |
| 46 | rs6694738 | A | -0.044 | 0.007885 | -0.00655 | 0.003326 |
| 47 | rs6747380 | A | 0.065 | 0.007658 | -0.00163 | 0.00311 |
| 48 | rs6758290 | C | -0.04 | 0.006322 | 0.000374 | 0.002328 |
| 49 | rs6770162 | A | 0.036 | 0.005733 | -0.00026 | 0.002327 |
| 50 | rs6933660 | A | -0.036 | 0.006331 | -0.00109 | 0.002505 |
| 51 | rs7103411 | T | -0.043 | 0.007056 | 0.010478 | 0.002858 |
| 52 | rs7119712 | A | -0.041 | 0.006445 | -0.00105 | 0.002663 |
| 53 | rs740077 | C | -0.046 | 0.007045 | -0.00765 | 0.002887 |
| 54 | rs7642134 | G | 0.038 | 0.005912 | 0.004661 | 0.00239 |
| 55 | rs7821178 | A | -0.045 | 0.006196 | 0.000554 | 0.002453 |
| 56 | rs7853970 | C | -0.037 | 0.00626 | 0.003595 | 0.00235 |
| 57 | rs7944630 | A | 0.047 | 0.005728 | 0.004215 | 0.002357 |
| 58 | rs852069 | G | 0.036 | 0.005907 | -0.00146 | 0.002418 |
| 59 | rs888345 | A | -0.044 | 0.007315 | 0.000747 | 0.002938 |
| 60 | rs895526 | C | 0.044 | 0.007553 | -0.0046 | 0.002972 |
| 61 | rs913588 | A | -0.034 | 0.005683 | 0.000591 | 0.002318 |
| 62 | rs9373571 | A | 0.034 | 0.005926 | -0.00332 | 0.002334 |
| 63 | rs9555810 | G | 0.047 | 0.006492 | -0.01011 | 0.002564 |
| 64 | rs9565073 | C | 0.034 | 0.005881 | -0.00352 | 0.002341 |
| 65 | rs9635759 | A | 0.058 | 0.006362 | -0.00389 | 0.002573 |
| 66 | rs9647570 | G | 0.046 | 0.008427 | -0.00321 | 0.003346 |
| 67 | rs9939609 | A | -0.042 | 0.00572 | 0.001694 | 0.002377 |
| 68 | rs9997604 | C | 0.039 | 0.006511 | -0.00176 | 0.002613 |

AAM: Age at menarche; TG: Triglycerides; SNPs: Single nucleotide polymorphisms.

a Effect size per allele in AAM (in years)

b Standard error of the genetic association of each effect allele with genetically predicted AAM

c Effect size of each allele on genetically-determined TG (mmol/l per allele)

d Standard error of the genetic association of each effect allele with genetically-determined TG

Table S18. Genetic estimates for the association of genetically predicted AAM with genetically-determined alcohol intake frequency.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Xka | σXkb | Zkc | σZkd |
| 1 | rs10144321 | G | -0.042 | 0.006618 | 0.000421 | 0.003597 |
| 2 | rs10483727 | C | -0.037 | 0.005785 | 0.002372 | 0.003104 |
| 3 | rs1079866 | G | 0.072 | 0.008444 | 0.013176 | 0.004453 |
| 4 | rs10840031 | A | 0.038 | 0.006406 | -0.00759 | 0.003255 |
| 5 | rs10938397 | G | -0.038 | 0.005923 | 0.012806 | 0.003059 |
| 6 | rs11022756 | C | -0.048 | 0.006481 | 0.005266 | 0.003334 |
| 7 | rs11715566 | T | 0.052 | 0.005631 | -0.01011 | 0.003027 |
| 8 | rs11756454 | A | 0.034 | 0.005703 | -0.0034 | 0.003045 |
| 9 | rs11767400 | A | 0.035 | 0.006295 | -0.01397 | 0.003293 |
| 10 | rs12003641 | T | 0.082 | 0.010555 | 0.004844 | 0.005496 |
| 11 | rs12148769 | A | -0.055 | 0.009752 | 0.00897 | 0.00493 |
| 12 | rs12291726 | G | 0.057 | 0.008333 | -0.00047 | 0.004103 |
| 13 | rs12598642 | G | 0.044 | 0.005681 | -0.00622 | 0.003075 |
| 14 | rs12915845 | T | -0.035 | 0.005729 | -0.00268 | 0.003068 |
| 15 | rs13179411 | T | 0.06 | 0.007813 | -0.00835 | 0.004235 |
| 16 | rs13215865 | T | -0.042 | 0.007472 | -0.00465 | 0.003782 |
| 17 | rs1398217 | C | 0.046 | 0.005767 | -0.00896 | 0.003061 |
| 18 | rs1482853 | A | -0.038 | 0.006043 | 0.002138 | 0.003097 |
| 19 | rs1516883 | A | -0.091 | 0.002455 | -0.00225 | 0.003268 |
| 20 | rs1518080 | G | -0.051 | 0.006004 | 0.001641 | 0.003163 |
| 21 | rs1659127 | A | 0.044 | 0.006372 | 0.000542 | 0.003221 |
| 22 | rs16938437 | T | -0.067 | 0.010348 | -0.00595 | 0.005241 |
| 23 | rs17351680 | G | 0.044 | 0.007557 | -0.00134 | 0.004156 |
| 24 | rs1874984 | C | 0.037 | 0.006005 | -0.00464 | 0.003025 |
| 25 | rs2153127 | C | -0.077 | 0.002077 | 0.001322 | 0.003034 |
| 26 | rs2179786 | T | -0.039 | 0.00572 | -0.00206 | 0.003068 |
| 27 | rs2184968 | C | -0.036 | 0.005672 | -0.00603 | 0.00304 |
| 28 | rs2303100 | T | 0.038 | 0.005684 | 0.001857 | 0.003044 |
| 29 | rs2344508 | A | 0.034 | 0.005747 | 0.003095 | 0.003052 |
| 30 | rs2617056 | T | -0.036 | 0.005933 | -0.00154 | 0.003102 |
| 31 | rs2687729 | G | 0.044 | 0.006575 | -0.00356 | 0.00343 |
| 32 | rs2836950 | G | -0.035 | 0.006206 | 0.005736 | 0.003166 |
| 33 | rs2947411 | G | -0.052 | 0.007655 | 0.008165 | 0.003978 |
| 34 | rs3115627 | G | 0.038 | 0.006453 | -0.00389 | 0.003205 |
| 35 | rs3733632 | G | 0.049 | 0.007862 | 0.009734 | 0.004216 |
| 36 | rs3743266 | C | -0.045 | 0.006233 | 0.009664 | 0.003212 |
| 37 | rs3870341 | G | -0.043 | 0.006449 | 0.005346 | 0.003457 |
| 38 | rs3914188 | C | 0.044 | 0.006702 | -0.01616 | 0.003424 |
| 39 | rs4242496 | A | -0.033 | 0.005696 | 0.00145 | 0.003061 |
| 40 | rs4369815 | G | -0.08 | 0.011888 | 0.002703 | 0.006113 |
| 41 | rs466639 | C | 0.075 | 0.008706 | -0.01188 | 0.004591 |
| 42 | rs4801589 | G | 0.032 | 0.005628 | -0.00215 | 0.003034 |
| 43 | rs4840086 | G | -0.036 | 0.00562 | -0.00171 | 0.003055 |
| 44 | rs618678 | T | -0.034 | 0.006148 | -0.00917 | 0.003222 |
| 45 | rs633715 | C | -0.051 | 0.00725 | 0.015628 | 0.003713 |
| 46 | rs6694738 | A | -0.044 | 0.007885 | -0.01442 | 0.004351 |
| 47 | rs6747380 | A | 0.065 | 0.007658 | 0.001162 | 0.004051 |
| 48 | rs6758290 | C | -0.04 | 0.006322 | 0.009138 | 0.003033 |
| 49 | rs6770162 | A | 0.036 | 0.005733 | -0.00371 | 0.003038 |
| 50 | rs6933660 | A | -0.036 | 0.006331 | 0.006975 | 0.003263 |
| 51 | rs7103411 | T | -0.043 | 0.007056 | -0.00305 | 0.003721 |
| 52 | rs7119712 | A | -0.041 | 0.006445 | 0.007824 | 0.003475 |
| 53 | rs740077 | C | -0.046 | 0.007045 | -0.00464 | 0.003746 |
| 54 | rs7642134 | G | 0.038 | 0.005912 | -0.00183 | 0.003121 |
| 55 | rs7821178 | A | -0.045 | 0.006196 | 0.001546 | 0.003202 |
| 56 | rs7853970 | C | -0.037 | 0.00626 | 0.006692 | 0.003071 |
| 57 | rs7944630 | A | 0.047 | 0.005728 | 0.001265 | 0.003074 |
| 58 | rs852069 | G | 0.036 | 0.005907 | 0.000125 | 0.003154 |
| 59 | rs888345 | A | -0.044 | 0.007315 | 0.002315 | 0.003843 |
| 60 | rs895526 | C | 0.044 | 0.007553 | 0.004627 | 0.003872 |
| 61 | rs913588 | A | -0.034 | 0.005683 | 0.006352 | 0.003025 |
| 62 | rs9373571 | A | 0.034 | 0.005926 | -0.00275 | 0.003043 |
| 63 | rs9555810 | G | 0.047 | 0.006492 | -0.0054 | 0.003347 |
| 64 | rs9565073 | C | 0.034 | 0.005881 | -0.00068 | 0.003058 |
| 65 | rs9635759 | A | 0.058 | 0.006362 | 0.00315 | 0.003363 |
| 66 | rs9647570 | G | 0.046 | 0.008427 | -0.00297 | 0.004373 |
| 67 | rs9939609 | A | -0.042 | 0.00572 | 0.018049 | 0.003096 |
| 68 | rs9997604 | C | 0.039 | 0.006511 | -0.00054 | 0.003412 |

AAM: Age at menarche; SNPs: Single nucleotide polymorphisms.

a Effect size per allele in AAM (in years)

b Standard error of the genetic association of each effect allele with genetically predicted AAM

c Effect size of each allele on genetically-determined alcohol intake frequency (times per week/ allele)

d Standard error of the genetic association of each effect allele with genetically-determined alcohol intake frequency

Table S19. Genetic estimates for the association of genetically predicted AAM with genetically-determined sleep duration.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Xka | σXkb | Zkc | σZkd |
| 1 | rs10144321 | G | -0.042 | 0.006618 | 0.001258 | 0.001899 |
| 2 | rs10483727 | C | -0.037 | 0.005785 | 0.001097 | 0.001639 |
| 3 | rs1079866 | G | 0.072 | 0.008444 | 0.001717 | 0.002352 |
| 4 | rs10840031 | A | 0.038 | 0.006406 | -0.00352 | 0.001719 |
| 5 | rs10938397 | G | -0.038 | 0.005923 | 0.003156 | 0.001616 |
| 6 | rs11022756 | C | -0.048 | 0.006481 | 0.002947 | 0.001761 |
| 7 | rs11715566 | T | 0.052 | 0.005631 | 0.002852 | 0.001599 |
| 8 | rs11756454 | A | 0.034 | 0.005703 | 0.005449 | 0.001608 |
| 9 | rs11767400 | A | 0.035 | 0.006295 | -0.00015 | 0.001739 |
| 10 | rs12003641 | T | 0.082 | 0.010555 | 0.000834 | 0.002903 |
| 11 | rs12148769 | A | -0.055 | 0.009752 | 0.000352 | 0.002603 |
| 12 | rs12291726 | G | 0.057 | 0.008333 | 0.00046 | 0.002167 |
| 13 | rs12598642 | G | 0.044 | 0.005681 | -0.00195 | 0.001624 |
| 14 | rs12915845 | T | -0.035 | 0.005729 | -0.00465 | 0.00162 |
| 15 | rs13179411 | T | 0.06 | 0.007813 | -0.00164 | 0.002236 |
| 16 | rs13215865 | T | -0.042 | 0.007472 | 0.001989 | 0.001997 |
| 17 | rs1398217 | C | 0.046 | 0.005767 | -0.00137 | 0.001617 |
| 18 | rs1482853 | A | -0.038 | 0.006043 | -0.00169 | 0.001636 |
| 19 | rs1516883 | A | -0.091 | 0.002455 | -0.00569 | 0.001726 |
| 20 | rs1518080 | G | -0.051 | 0.006004 | -0.00079 | 0.001671 |
| 21 | rs1659127 | A | 0.044 | 0.006372 | -0.00031 | 0.001701 |
| 22 | rs16938437 | T | -0.067 | 0.010348 | 0.001959 | 0.002767 |
| 23 | rs17351680 | G | 0.044 | 0.007557 | 0.001023 | 0.002195 |
| 24 | rs1874984 | C | 0.037 | 0.006005 | 0.000201 | 0.001598 |
| 25 | rs2153127 | C | -0.077 | 0.002077 | -0.00497 | 0.001602 |
| 26 | rs2179786 | T | -0.039 | 0.00572 | -0.00481 | 0.00162 |
| 27 | rs2184968 | C | -0.036 | 0.005672 | -0.00123 | 0.001605 |
| 28 | rs2303100 | T | 0.038 | 0.005684 | 0.010561 | 0.001607 |
| 29 | rs2344508 | A | 0.034 | 0.005747 | 0.001889 | 0.001612 |
| 30 | rs2617056 | T | -0.036 | 0.005933 | -0.00045 | 0.001638 |
| 31 | rs2687729 | G | 0.044 | 0.006575 | 0.003347 | 0.001812 |
| 32 | rs2836950 | G | -0.035 | 0.006206 | 0.000642 | 0.001672 |
| 33 | rs2947411 | G | -0.052 | 0.007655 | -0.00505 | 0.002102 |
| 34 | rs3115627 | G | 0.038 | 0.006453 | 0.007265 | 0.001692 |
| 35 | rs3733632 | G | 0.049 | 0.007862 | 0.002903 | 0.002226 |
| 36 | rs3743266 | C | -0.045 | 0.006233 | -0.00324 | 0.001696 |
| 37 | rs3870341 | G | -0.043 | 0.006449 | 0.001092 | 0.001826 |
| 38 | rs3914188 | C | 0.044 | 0.006702 | 0.001998 | 0.001808 |
| 39 | rs4242496 | A | -0.033 | 0.005696 | -0.00358 | 0.001616 |
| 40 | rs4369815 | G | -0.08 | 0.011888 | -0.00051 | 0.00323 |
| 41 | rs466639 | C | 0.075 | 0.008706 | 0.000849 | 0.002425 |
| 42 | rs4801589 | G | 0.032 | 0.005628 | 0.002599 | 0.001602 |
| 43 | rs4840086 | G | -0.036 | 0.00562 | -0.00154 | 0.001613 |
| 44 | rs618678 | T | -0.034 | 0.006148 | 0.001568 | 0.001702 |
| 45 | rs633715 | C | -0.051 | 0.00725 | -0.00337 | 0.001961 |
| 46 | rs6694738 | A | -0.044 | 0.007885 | 0.002811 | 0.002298 |
| 47 | rs6747380 | A | 0.065 | 0.007658 | -0.00076 | 0.00214 |
| 48 | rs6758290 | C | -0.04 | 0.006322 | 0.003024 | 0.001602 |
| 49 | rs6770162 | A | 0.036 | 0.005733 | -0.001 | 0.001605 |
| 50 | rs6933660 | A | -0.036 | 0.006331 | 0.000653 | 0.001723 |
| 51 | rs7103411 | T | -0.043 | 0.007056 | -0.00156 | 0.001965 |
| 52 | rs7119712 | A | -0.041 | 0.006445 | 0.001396 | 0.001836 |
| 53 | rs740077 | C | -0.046 | 0.007045 | -0.0026 | 0.001978 |
| 54 | rs7642134 | G | 0.038 | 0.005912 | -0.00245 | 0.001648 |
| 55 | rs7821178 | A | -0.045 | 0.006196 | -0.00376 | 0.001691 |
| 56 | rs7853970 | C | -0.037 | 0.00626 | 0.000524 | 0.001622 |
| 57 | rs7944630 | A | 0.047 | 0.005728 | 0.002612 | 0.001623 |
| 58 | rs852069 | G | 0.036 | 0.005907 | 0.000542 | 0.001666 |
| 59 | rs888345 | A | -0.044 | 0.007315 | -0.00365 | 0.002029 |
| 60 | rs895526 | C | 0.044 | 0.007553 | 0.003406 | 0.002045 |
| 61 | rs913588 | A | -0.034 | 0.005683 | -0.00501 | 0.001598 |
| 62 | rs9373571 | A | 0.034 | 0.005926 | 0.006868 | 0.001607 |
| 63 | rs9555810 | G | 0.047 | 0.006492 | -0.00176 | 0.001767 |
| 64 | rs9565073 | C | 0.034 | 0.005881 | -0.00317 | 0.001614 |
| 65 | rs9635759 | A | 0.058 | 0.006362 | -0.00503 | 0.001776 |
| 66 | rs9647570 | G | 0.046 | 0.008427 | 0.000228 | 0.00231 |
| 67 | rs9939609 | A | -0.042 | 0.00572 | -0.01049 | 0.001635 |
| 68 | rs9997604 | C | 0.039 | 0.006511 | 0.003536 | 0.001802 |

AAM: Age at menarche; SNPs: Single nucleotide polymorphisms.

a Effect size per allele in AAM (in years)

b Standard error of the genetic association of each effect allele with genetically predicted AAM

c Effect size of each allele on genetically-determined sleep duration (hours per allele)

d Standard error of the genetic association of each effect allele with genetically-determined sleep duration

Table S20. Genetic estimates for the association of genetically predicted AAM with genetically-determined WHR.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Xka | σXkb | Zkc | σZkd |
| 1 | rs10144321 | G | -0.042 | 0.006618 | 0.0013 | 0.006 |
| 2 | rs10483727 | C | -0.037 | 0.005785 | 0.0058 | 0.0045 |
| 3 | rs1079866 | G | 0.072 | 0.008444 | -0.006 | 0.0078 |
| 4 | rs10840031 | A | 0.038 | 0.006406 | -0.013 | 0.0048 |
| 5 | rs10938397 | G | -0.038 | 0.005923 | 0.013 | 0.0045 |
| 6 | rs11022756 | C | -0.048 | 0.006481 | 0.01 | 0.0058 |
| 7 | rs11715566 | T | 0.052 | 0.005631 | -0.0014 | 0.0051 |
| 8 | rs11756454 | A | 0.034 | 0.005703 | -0.0014 | 0.0052 |
| 9 | rs11767400 | A | 0.035 | 0.006295 | 0.0024 | 0.0058 |
| 10 | rs12003641 | T | 0.082 | 0.010555 | 0.0038 | 0.0095 |
| 11 | rs12148769 | A | -0.055 | 0.009752 | -0.0032 | 0.0075 |
| 12 | rs12291726 | G | 0.057 | 0.008333 | 0.0046 | 0.0076 |
| 13 | rs12598642 | G | 0.044 | 0.005681 | -0.0098 | 0.0052 |
| 14 | rs12915845 | T | -0.035 | 0.005729 | 0.0017 | 0.0053 |
| 15 | rs13179411 | T | 0.06 | 0.007813 | -0.0014 | 0.007 |
| 16 | rs13215865 | T | -0.042 | 0.007472 | 0.017 | 0.0066 |
| 17 | rs1398217 | C | 0.046 | 0.005767 | -8.00E-04 | 0.0052 |
| 18 | rs1482853 | A | -0.038 | 0.006043 | -0.019 | 0.0054 |
| 19 | rs1516883 | A | -0.091 | 0.002455 | 6.00E-04 | 0.0056 |
| 20 | rs1518080 | G | -0.051 | 0.006004 | 1.00E-04 | 0.0054 |
| 21 | rs1659127 | A | 0.044 | 0.006372 | 0.0046 | 0.0048 |
| 22 | rs16938437 | T | -0.067 | 0.010348 | -0.0019 | 0.0079 |
| 23 | rs17351680 | G | 0.044 | 0.007557 | -0.0065 | 0.0068 |
| 24 | rs1874984 | C | 0.037 | 0.006005 | -0.0076 | 0.0056 |
| 25 | rs2153127 | C | -0.077 | 0.002077 | 0.001 | 0.0052 |
| 26 | rs2179786 | T | -0.039 | 0.00572 | -0.0037 | 0.0052 |
| 27 | rs2184968 | C | -0.036 | 0.005672 | -0.012 | 0.0052 |
| 28 | rs2303100 | T | 0.038 | 0.005684 | 0.0059 | 0.0052 |
| 29 | rs2344508 | A | 0.034 | 0.005747 | -0.0068 | 0.0044 |
| 30 | rs2617056 | T | -0.036 | 0.005933 | -0.0055 | 0.0053 |
| 31 | rs2687729 | G | 0.044 | 0.006575 | -0.013 | 0.0058 |
| 32 | rs2836950 | G | -0.035 | 0.006206 | 0.0033 | 0.0057 |
| 33 | rs2947411 | G | -0.052 | 0.007655 | 0.015 | 0.0058 |
| 34 | rs3115627 | G | 0.038 | 0.006453 | -0.0078 | 0.0056 |
| 35 | rs3733632 | G | 0.049 | 0.007862 | 0.0022 | 0.0072 |
| 36 | rs3743266 | C | -0.045 | 0.006233 | -0.0016 | 0.0056 |
| 37 | rs3870341 | G | -0.043 | 0.006449 | 0.011 | 0.0059 |
| 38 | rs3914188 | C | 0.044 | 0.006702 | 0.0068 | 0.0061 |
| 39 | rs4242496 | A | -0.033 | 0.005696 | 1.00E-04 | 0.0052 |
| 40 | rs4369815 | G | -0.08 | 0.011888 | -0.0059 | 0.011 |
| 41 | rs466639 | C | 0.075 | 0.008706 | -0.002 | 0.0077 |
| 42 | rs4801589 | G | 0.032 | 0.005628 | -0.0045 | 0.0052 |
| 43 | rs4840086 | G | -0.036 | 0.00562 | 0.0045 | 0.0052 |
| 44 | rs618678 | T | -0.034 | 0.006148 | -0.008 | 0.0056 |
| 45 | rs633715 | C | -0.051 | 0.00725 | 0.02 | 0.0057 |
| 46 | rs6694738 | A | -0.044 | 0.007885 | 0.0043 | 0.0069 |
| 47 | rs6747380 | A | 0.065 | 0.007658 | 0.0074 | 0.0067 |
| 48 | rs6758290 | C | -0.04 | 0.006322 | 0.0097 | 0.0057 |
| 49 | rs6770162 | A | 0.036 | 0.005733 | 0.0052 | 0.0053 |
| 50 | rs6933660 | A | -0.036 | 0.006331 | 0.0057 | 0.0057 |
| 51 | rs7103411 | T | -0.043 | 0.007056 | 0.019 | 0.0053 |
| 52 | rs7119712 | A | -0.041 | 0.006445 | 0.0075 | 0.0059 |
| 53 | rs740077 | C | -0.046 | 0.007045 | -0.0014 | 0.0063 |
| 54 | rs7642134 | G | 0.038 | 0.005912 | 0.0014 | 0.0053 |
| 55 | rs7821178 | A | -0.045 | 0.006196 | 0.0069 | 0.0056 |
| 56 | rs7853970 | C | -0.037 | 0.00626 | -0.0079 | 0.0057 |
| 57 | rs7944630 | A | 0.047 | 0.005728 | 5.00E-04 | 0.0052 |
| 58 | rs852069 | G | 0.036 | 0.005907 | -3.00E-04 | 0.0054 |
| 59 | rs888345 | A | -0.044 | 0.007315 | -0.013 | 0.0066 |
| 60 | rs895526 | C | 0.044 | 0.007553 | 0.0064 | 0.0067 |
| 61 | rs913588 | A | -0.034 | 0.005683 | -0.0068 | 0.0051 |
| 62 | rs9373571 | A | 0.034 | 0.005926 | -0.0034 | 0.0044 |
| 63 | rs9555810 | G | 0.047 | 0.006492 | 0.0026 | 0.0059 |
| 64 | rs9565073 | C | 0.034 | 0.005881 | -0.0016 | 0.0056 |
| 65 | rs9635759 | A | 0.058 | 0.006362 | 0.0078 | 0.0059 |
| 66 | rs9647570 | G | 0.046 | 0.008427 | 0.006 | 0.0077 |
| 67 | rs9939609 | A | -0.042 | 0.00572 | 0.037 | 0.0044 |
| 68 | rs9997604 | C | 0.039 | 0.006511 | 9.00E-04 | 0.006 |

AAM: Age at menarche; WHR: Waist-hip-ratio; SNPs: Single nucleotide polymorphisms.

a Effect size per allele in AAM (in years)

b Standard error of the genetic association of each effect allele with genetically predicted AAM

c Effect size of each allele on genetically-determined WHR (percentage point/ allele)

d Standard error of the genetic association of each effect allele with genetically-determined WHR

Table S21. Genetic estimates for the association of genetically predicted AAM with genetically-determined FBG.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Xka | σXkb | Zkc | σZkd |
| 1 | rs10144321 | G | -0.042 | 0.006618 | 0.0098 | 0.0042 |
| 2 | rs10483727 | C | -0.037 | 0.005785 | -0.0067 | 0.0038 |
| 3 | rs1079866 | G | 0.072 | 0.008444 | 6.00E-04 | 0.0053 |
| 4 | rs10840031 | A | 0.038 | 0.006406 | -0.0047 | 0.0039 |
| 5 | rs10938397 | G | -0.038 | 0.005923 | -0.0019 | 0.0039 |
| 6 | rs11022756 | C | -0.048 | 0.006481 | -3.00E-04 | 0.0041 |
| 7 | rs11715566 | T | 0.052 | 0.005631 | -0.0045 | 0.0037 |
| 8 | rs11756454 | A | 0.034 | 0.005703 | -0.0062 | 0.0036 |
| 9 | rs11767400 | A | 0.035 | 0.006295 | 0.0046 | 0.004 |
| 10 | rs12003641 | T | 0.082 | 0.010555 | 0.0035 | 0.0066 |
| 11 | rs12148769 | A | -0.055 | 0.009752 | -0.014 | 0.0066 |
| 12 | rs12291726 | G | 0.057 | 0.008333 | 0.0049 | 0.005 |
| 13 | rs12598642 | G | 0.044 | 0.005681 | -0.0039 | 0.0037 |
| 14 | rs12915845 | T | -0.035 | 0.005729 | -0.0021 | 0.0037 |
| 15 | rs13179411 | T | 0.06 | 0.007813 | -2.00E-04 | 0.0048 |
| 16 | rs13215865 | T | -0.042 | 0.007472 | 0.002 | 0.0047 |
| 17 | rs1398217 | C | 0.046 | 0.005767 | 7.00E-04 | 0.0037 |
| 18 | rs1482853 | A | -0.038 | 0.006043 | 0.0038 | 0.004 |
| 19 | rs1516883 | A | -0.091 | 0.002455 | 0.0073 | 0.0039 |
| 20 | rs1518080 | G | -0.051 | 0.006004 | -4.00E-04 | 0.0038 |
| 21 | rs1659127 | A | 0.044 | 0.006372 | -0.0044 | 0.0042 |
| 22 | rs16938437 | T | -0.067 | 0.010348 | -0.0076 | 0.0068 |
| 23 | rs17351680 | G | 0.044 | 0.007557 | -0.0014 | 0.0047 |
| 24 | rs1874984 | C | 0.037 | 0.006005 | -0.0072 | 0.0039 |
| 25 | rs2153127 | C | -0.077 | 0.002077 | -0.0032 | 0.0039 |
| 26 | rs2179786 | T | -0.039 | 0.00572 | -0.0026 | 0.0037 |
| 27 | rs2184968 | C | -0.036 | 0.005672 | 0.0069 | 0.0036 |
| 28 | rs2303100 | T | 0.038 | 0.005684 | -0.001 | 0.0037 |
| 29 | rs2344508 | A | 0.034 | 0.005747 | -0.0077 | 0.0037 |
| 30 | rs2617056 | T | -0.036 | 0.005933 | 0.0073 | 0.0038 |
| 31 | rs2687729 | G | 0.044 | 0.006575 | -0.0071 | 0.0041 |
| 32 | rs2836950 | G | -0.035 | 0.006206 | 0.006 | 0.004 |
| 33 | rs2947411 | G | -0.052 | 0.007655 | 0.0038 | 0.0047 |
| 34 | rs3115627 | G | 0.038 | 0.006453 | -0.0022 | 0.0039 |
| 35 | rs3733632 | G | 0.049 | 0.007862 | 0.0037 | 0.0051 |
| 36 | rs3743266 | C | -0.045 | 0.006233 | 0.0093 | 0.004 |
| 37 | rs3870341 | G | -0.043 | 0.006449 | 0.0024 | 0.0041 |
| 38 | rs3914188 | C | 0.044 | 0.006702 | 2.00E-04 | 0.0043 |
| 39 | rs4242496 | A | -0.033 | 0.005696 | -0.0036 | 0.0037 |
| 40 | rs4369815 | G | -0.08 | 0.011888 | 0.015 | 0.0077 |
| 41 | rs466639 | C | 0.075 | 0.008706 | 0.0018 | 0.0055 |
| 42 | rs4801589 | G | 0.032 | 0.005628 | 0.0045 | 0.0038 |
| 43 | rs4840086 | G | -0.036 | 0.00562 | 6.00E-04 | 0.0036 |
| 44 | rs618678 | T | -0.034 | 0.006148 | 0.0049 | 0.0039 |
| 45 | rs633715 | C | -0.051 | 0.00725 | 0.0028 | 0.0048 |
| 46 | rs6694738 | A | -0.044 | 0.007885 | 0.005 | 0.0048 |
| 47 | rs6747380 | A | 0.065 | 0.007658 | 0.0089 | 0.0048 |
| 48 | rs6758290 | C | -0.04 | 0.006322 | 0.0025 | 0.004 |
| 49 | rs6770162 | A | 0.036 | 0.005733 | 0.0065 | 0.0037 |
| 50 | rs6933660 | A | -0.036 | 0.006331 | 0.0012 | 0.0041 |
| 51 | rs7103411 | T | -0.043 | 0.007056 | 0.0044 | 0.0045 |
| 52 | rs7119712 | A | -0.041 | 0.006445 | 0.0037 | 0.0041 |
| 53 | rs740077 | C | -0.046 | 0.007045 | -0.0019 | 0.0043 |
| 54 | rs7642134 | G | 0.038 | 0.005912 | -0.0025 | 0.0038 |
| 55 | rs7821178 | A | -0.045 | 0.006196 | 0.0022 | 0.0039 |
| 56 | rs7853970 | C | -0.037 | 0.00626 | -0.0042 | 0.0039 |
| 57 | rs7944630 | A | 0.047 | 0.005728 | 0.0029 | 0.0037 |
| 58 | rs852069 | G | 0.036 | 0.005907 | -0.0027 | 0.0038 |
| 59 | rs888345 | A | -0.044 | 0.007315 | -0.0032 | 0.0047 |
| 60 | rs895526 | C | 0.044 | 0.007553 | 0.0038 | 0.0048 |
| 61 | rs913588 | A | -0.034 | 0.005683 | 0.005 | 0.0036 |
| 62 | rs9373571 | A | 0.034 | 0.005926 | -0.0071 | 0.0037 |
| 63 | rs9555810 | G | 0.047 | 0.006492 | -0.0062 | 0.0042 |
| 64 | rs9565073 | C | 0.034 | 0.005881 | 6.00E-04 | 0.004 |
| 65 | rs9635759 | A | 0.058 | 0.006362 | 0.0043 | 0.0042 |
| 66 | rs9647570 | G | 0.046 | 0.008427 | -0.0022 | 0.0055 |
| 67 | rs9939609 | A | -0.042 | 0.00572 | 0.0061 | 0.0037 |
| 68 | rs9997604 | C | 0.039 | 0.006511 | 0.0093 | 0.0041 |

AAM: Age at menarche; FBG: Fasting blood glucose; SNPs: Single nucleotide polymorphisms.

a Effect size per allele in AAM (in years)

b Standard error of the genetic association of each effect allele with genetically predicted AAM

c Effect size of each allele on genetically-determined FBG (mmol/l per allele))

d Standard error of the genetic association of each effect allele with genetically-determined FBG

Table S22. Genetic estimates for the association of genetically predicted AAM with genetically-determined HDL.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Xka | σXkb | Zkc | σZkd |
| 1 | rs10144321 | G | -0.042 | 0.006618 | -0.00363 | 0.010835 |
| 2 | rs10483727 | C | -0.037 | 0.005785 | 0.002366 | 0.010814 |
| 3 | rs1079866 | G | 0.072 | 0.008444 | -0.00254 | 0.012928 |
| 4 | rs10840031 | A | 0.038 | 0.006406 | 0.011278 | 0.010841 |
| 5 | rs10938397 | G | -0.038 | 0.005923 | 0.001413 | 0.010476 |
| 6 | rs11022756 | C | -0.048 | 0.006481 | -0.01973 | 0.010929 |
| 7 | rs11715566 | T | 0.052 | 0.005631 | 0.002146 | 0.011338 |
| 8 | rs11756454 | A | 0.034 | 0.005703 | -0.00847 | 0.009815 |
| 9 | rs11767400 | A | 0.035 | 0.006295 | 0.005717 | 0.01169 |
| 10 | rs12003641 | T | 0.082 | 0.010555 | -0.00715 | 0.019154 |
| 11 | rs12148769 | A | -0.055 | 0.009752 | 0.004852 | 0.018009 |
| 12 | rs12291726 | G | 0.057 | 0.008333 | 0.025537 | 0.012745 |
| 13 | rs12598642 | G | 0.044 | 0.005681 | 0.011648 | 0.009952 |
| 14 | rs12915845 | T | -0.035 | 0.005729 | 0.005595 | 0.009967 |
| 15 | rs13179411 | T | 0.06 | 0.007813 | 0.011671 | 0.012466 |
| 16 | rs13215865 | T | -0.042 | 0.007472 | -0.00578 | 0.011967 |
| 17 | rs1398217 | C | 0.046 | 0.005767 | 0.002728 | 0.010044 |
| 18 | rs1482853 | A | -0.038 | 0.006043 | 0.027975 | 0.0117 |
| 19 | rs1516883 | A | -0.091 | 0.002455 | -0.0058 | 0.010343 |
| 20 | rs1518080 | G | -0.051 | 0.006004 | -0.0012 | 0.010936 |
| 21 | rs1659127 | A | 0.044 | 0.006372 | 0.007084 | 0.010645 |
| 22 | rs16938437 | T | -0.067 | 0.010348 | 0.014046 | 0.019003 |
| 23 | rs17351680 | G | 0.044 | 0.007557 | 0.005589 | 0.013525 |
| 24 | rs1874984 | C | 0.037 | 0.006005 | -0.01124 | 0.010396 |
| 25 | rs2153127 | C | -0.077 | 0.002077 | 0.010209 | 0.009999 |
| 26 | rs2179786 | T | -0.039 | 0.00572 | 0.001993 | 0.009875 |
| 27 | rs2184968 | C | -0.036 | 0.005672 | 0.004361 | 0.009917 |
| 28 | rs2303100 | T | 0.038 | 0.005684 | -0.0011 | 0.009902 |
| 29 | rs2344508 | A | 0.034 | 0.005747 | 0.012005 | 0.009943 |
| 30 | rs2617056 | T | -0.036 | 0.005933 | 0.00421 | 0.009974 |
| 31 | rs2687729 | G | 0.044 | 0.006575 | 0.034193 | 0.012373 |
| 32 | rs2836950 | G | -0.035 | 0.006206 | -0.01315 | 0.009906 |
| 33 | rs2947411 | G | -0.052 | 0.007655 | -0.02318 | 0.01319 |
| 34 | rs3115627 | G | 0.038 | 0.006453 | -0.0318 | 0.014852 |
| 35 | rs3733632 | G | 0.049 | 0.007862 | 0.002856 | 0.013438 |
| 36 | rs3743266 | C | -0.045 | 0.006233 | -0.00553 | 0.011427 |
| 37 | rs3870341 | G | -0.043 | 0.006449 | -0.01521 | 0.011948 |
| 38 | rs3914188 | C | 0.044 | 0.006702 | -0.00657 | 0.012053 |
| 39 | rs4242496 | A | -0.033 | 0.005696 | 0.020167 | 0.009931 |
| 40 | rs4369815 | G | -0.08 | 0.011888 | -0.04774 | 0.023133 |
| 41 | rs466639 | C | 0.075 | 0.008706 | 0.011467 | 0.014119 |
| 42 | rs4801589 | G | 0.032 | 0.005628 | -0.0029 | 0.009971 |
| 43 | rs4840086 | G | -0.036 | 0.00562 | -0.00181 | 0.010062 |
| 44 | rs618678 | T | -0.034 | 0.006148 | 0.014171 | 0.010433 |
| 45 | rs633715 | C | -0.051 | 0.00725 | -0.01849 | 0.01251 |
| 46 | rs6694738 | A | -0.044 | 0.007885 | -0.00363 | 0.013419 |
| 47 | rs6747380 | A | 0.065 | 0.007658 | 0.010016 | 0.011546 |
| 48 | rs6758290 | C | -0.04 | 0.006322 | -0.00762 | 0.010143 |
| 49 | rs6770162 | A | 0.036 | 0.005733 | 0.004844 | 0.010083 |
| 50 | rs6933660 | A | -0.036 | 0.006331 | -0.00301 | 0.010537 |
| 51 | rs7103411 | T | -0.043 | 0.007056 | -0.01549 | 0.01264 |
| 52 | rs7119712 | A | -0.041 | 0.006445 | -0.00874 | 0.011128 |
| 53 | rs740077 | C | -0.046 | 0.007045 | -0.00051 | 0.01159 |
| 54 | rs7642134 | G | 0.038 | 0.005912 | -0.01493 | 0.010116 |
| 55 | rs7821178 | A | -0.045 | 0.006196 | -0.01279 | 0.010858 |
| 56 | rs7853970 | C | -0.037 | 0.00626 | 0.007862 | 0.010177 |
| 57 | rs7944630 | A | 0.047 | 0.005728 | 0.009528 | 0.010113 |
| 58 | rs852069 | G | 0.036 | 0.005907 | 0.000662 | 0.01023 |
| 59 | rs888345 | A | -0.044 | 0.007315 | 0.012617 | 0.011198 |
| 60 | rs895526 | C | 0.044 | 0.007553 | 0.008882 | 0.015036 |
| 61 | rs913588 | A | -0.034 | 0.005683 | -0.01291 | 0.009809 |
| 62 | rs9373571 | A | 0.034 | 0.005926 | 0.007057 | 0.009913 |
| 63 | rs9555810 | G | 0.047 | 0.006492 | -0.00281 | 0.011337 |
| 64 | rs9565073 | C | 0.034 | 0.005881 | 0.016453 | 0.010241 |
| 65 | rs9635759 | A | 0.058 | 0.006362 | 0.025096 | 0.010472 |
| 66 | rs9647570 | G | 0.046 | 0.008427 | 0.022038 | 0.014112 |
| 67 | rs9939609 | A | -0.042 | 0.00572 | -0.00943 | 0.009934 |
| 68 | rs9997604 | C | 0.039 | 0.006511 | -0.00883 | 0.011265 |

AAM: Age at menarche; HDL: high-density lipoprotein; SNPs: Single nucleotide polymorphisms.

a Effect size per allele in AAM (in years)

b Standard error of the genetic association of each effect allele with genetically predicted AAM

c Effect size of each allele on genetically-determined HDL (mmol/l per allele)

d Standard error of the genetic association of each effect allele with genetically-determined HDL

Table S23. Genetic estimates for the association of genetically predicted AAM with genetically-determined age that started HRT.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Xka | σXkb | Zkc | σZkd |
| 1 | rs10144321 | G | -0.042 | 0.006618 | 0.001214 | 0.005646 |
| 2 | rs10483727 | C | -0.037 | 0.005785 | -0.01343 | 0.004862 |
| 3 | rs1079866 | G | 0.072 | 0.008444 | 0.004572 | 0.006963 |
| 4 | rs10840031 | A | 0.038 | 0.006406 | 0.001882 | 0.00512 |
| 5 | rs10938397 | G | -0.038 | 0.005923 | 0.000645 | 0.004806 |
| 6 | rs11022756 | C | -0.048 | 0.006481 | -0.00798 | 0.005231 |
| 7 | rs11715566 | T | 0.052 | 0.005631 | -0.0077 | 0.004748 |
| 8 | rs11756454 | A | 0.034 | 0.005703 | -0.00129 | 0.004776 |
| 9 | rs11767400 | A | 0.035 | 0.006295 | -0.00543 | 0.00518 |
| 10 | rs12003641 | T | 0.082 | 0.010555 | 0.014261 | 0.008581 |
| 11 | rs12148769 | A | -0.055 | 0.009752 | -0.0133 | 0.007724 |
| 12 | rs12291726 | G | 0.057 | 0.008333 | 0.013324 | 0.006438 |
| 13 | rs12598642 | G | 0.044 | 0.005681 | -0.003 | 0.004826 |
| 14 | rs12915845 | T | -0.035 | 0.005729 | 0.007579 | 0.004811 |
| 15 | rs13179411 | T | 0.06 | 0.007813 | 0.015425 | 0.006658 |
| 16 | rs13215865 | T | -0.042 | 0.007472 | -0.01063 | 0.005923 |
| 17 | rs1398217 | C | 0.046 | 0.005767 | 0.002898 | 0.004806 |
| 18 | rs1482853 | A | -0.038 | 0.006043 | -0.00893 | 0.004865 |
| 19 | rs1516883 | A | -0.091 | 0.002455 | 0.001067 | 0.005119 |
| 20 | rs1518080 | G | -0.051 | 0.006004 | -0.0097 | 0.004942 |
| 21 | rs1659127 | A | 0.044 | 0.006372 | -0.00057 | 0.005043 |
| 22 | rs16938437 | T | -0.067 | 0.010348 | 0.028112 | 0.008233 |
| 23 | rs17351680 | G | 0.044 | 0.007557 | 0.01231 | 0.006507 |
| 24 | rs1874984 | C | 0.037 | 0.006005 | -0.0029 | 0.004749 |
| 25 | rs2153127 | C | -0.077 | 0.002077 | -0.00738 | 0.00476 |
| 26 | rs2179786 | T | -0.039 | 0.00572 | 0.003704 | 0.004811 |
| 27 | rs2184968 | C | -0.036 | 0.005672 | -0.01345 | 0.004777 |
| 28 | rs2303100 | T | 0.038 | 0.005684 | 0.009931 | 0.004765 |
| 29 | rs2344508 | A | 0.034 | 0.005747 | 0.001994 | 0.004792 |
| 30 | rs2617056 | T | -0.036 | 0.005933 | 0.002716 | 0.004867 |
| 31 | rs2687729 | G | 0.044 | 0.006575 | 0.009244 | 0.005369 |
| 32 | rs2836950 | G | -0.035 | 0.006206 | 0.013467 | 0.004962 |
| 33 | rs2947411 | G | -0.052 | 0.007655 | 0.000248 | 0.006248 |
| 34 | rs3115627 | G | 0.038 | 0.006453 | 0.005002 | 0.005004 |
| 35 | rs3733632 | G | 0.049 | 0.007862 | -0.00285 | 0.006645 |
| 36 | rs3743266 | C | -0.045 | 0.006233 | -0.0067 | 0.005043 |
| 37 | rs3870341 | G | -0.043 | 0.006449 | -0.00141 | 0.005402 |
| 38 | rs3914188 | C | 0.044 | 0.006702 | 0.007573 | 0.005371 |
| 39 | rs4242496 | A | -0.033 | 0.005696 | -0.00383 | 0.004811 |
| 40 | rs4369815 | G | -0.08 | 0.011888 | 0.009636 | 0.009512 |
| 41 | rs466639 | C | 0.075 | 0.008706 | 0.005154 | 0.007208 |
| 42 | rs4801589 | G | 0.032 | 0.005628 | -0.00159 | 0.004749 |
| 43 | rs4840086 | G | -0.036 | 0.00562 | 0.002784 | 0.004783 |
| 44 | rs618678 | T | -0.034 | 0.006148 | -0.00201 | 0.005057 |
| 45 | rs633715 | C | -0.051 | 0.00725 | -0.00774 | 0.005824 |
| 46 | rs6694738 | A | -0.044 | 0.007885 | 0.003537 | 0.006862 |
| 47 | rs6747380 | A | 0.065 | 0.007658 | 0.007066 | 0.006349 |
| 48 | rs6758290 | C | -0.04 | 0.006322 | 0.00759 | 0.004753 |
| 49 | rs6770162 | A | 0.036 | 0.005733 | 0.007469 | 0.004763 |
| 50 | rs6933660 | A | -0.036 | 0.006331 | -0.00868 | 0.005114 |
| 51 | rs7103411 | T | -0.043 | 0.007056 | 0.003662 | 0.005828 |
| 52 | rs7119712 | A | -0.041 | 0.006445 | -0.00053 | 0.005455 |
| 53 | rs740077 | C | -0.046 | 0.007045 | -0.00566 | 0.005894 |
| 54 | rs7642134 | G | 0.038 | 0.005912 | 0.009112 | 0.004899 |
| 55 | rs7821178 | A | -0.045 | 0.006196 | -0.00394 | 0.005015 |
| 56 | rs7853970 | C | -0.037 | 0.00626 | -0.00848 | 0.004815 |
| 57 | rs7944630 | A | 0.047 | 0.005728 | -0.00049 | 0.004819 |
| 58 | rs852069 | G | 0.036 | 0.005907 | 0.001682 | 0.004943 |
| 59 | rs888345 | A | -0.044 | 0.007315 | -0.00744 | 0.006041 |
| 60 | rs895526 | C | 0.044 | 0.007553 | -0.00069 | 0.006067 |
| 61 | rs913588 | A | -0.034 | 0.005683 | 0.000423 | 0.004743 |
| 62 | rs9373571 | A | 0.034 | 0.005926 | 0.007432 | 0.004766 |
| 63 | rs9555810 | G | 0.047 | 0.006492 | 0.014442 | 0.005257 |
| 64 | rs9565073 | C | 0.034 | 0.005881 | -0.01103 | 0.004785 |
| 65 | rs9635759 | A | 0.058 | 0.006362 | -0.00115 | 0.005274 |
| 66 | rs9647570 | G | 0.046 | 0.008427 | 0.011441 | 0.006814 |
| 67 | rs9939609 | A | -0.042 | 0.00572 | 0.010907 | 0.004864 |
| 68 | rs9997604 | C | 0.039 | 0.006511 | -0.00483 | 0.005348 |

AAM: Age at menarche; HRT: Hormone-replacement therapy; SNPs: Single nucleotide polymorphisms.

a Effect size per allele in AAM (in years)

b Standard error of the genetic association of each effect allele with genetically predicted AAM

c Effect size of each allele on genetically-determined age that started HRT (years/allele)

d Standard error of the genetic association of each effect allele with genetically-determined age that started HR

Table S24. MR estimates of associations of genetically predicted AAM with each genetically-determined risk factor.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | MR Method | OR | 95% CI | p-value |
| Current smoking behavior | Simple Median | 0.99 | 0.98-0.99 | 0.078 |
|  | Weighted Median | 0.98 | 0.97-0.99 | 0.007 |
|  | MR Egger | 0.95 | 0.91-0.99 | 0.066 |
|  | Inverse variance weighted | 0.99 | 0.97-0.99 | 0.049 |
| HbA1c | Simple Median | 0.86 | 0.74-1.01 | 0.059 |
|  | Weighted Median | 1.01 | 0.85-1.19 | 0.950 |
|  | MR Egger | 1.34 | 0.62-2.91 | 0.460 |
|  | Inverse variance weighted | 0.75 | 0.61-0.92 | 0.005 |
| SBP | Simple Median | 0.97 | 0.94-0.99 | 0.015 |
|  | Weighted Median | 0.97 | 0.95-1.00 | 0.063 |
|  | MR Egger | 1.05 | 0.95-1.16 | 0.345 |
|  | Inverse variance weighted | 0.97 | 0.95-0.99 | 0.048 |
| TG | Simple Median | 0.97 | 0.95-0.99 | 0.017 |
|  | Weighted Median | 0.97 | 0.94-0.99 | 0.006 |
|  | MR Egger | 0.90 | 0.80-1.02 | 0.102 |
|  | Inverse variance weighted | 0.97 | 0.94-0.99 | 0.041 |
| alcohol intake frequency | Simple Median | 0.95 | 0.93-0.98 | 0 |
|  | Weighted Median | 0.97 | 0.94-1.00 | 0.026 |
|  | MR Egger | 1.04 | 0.92-1.18 | 0.504 |
|  | Inverse variance weighted | 0.95 | 0.92-0.98 | 0.001 |
| sleep duration | Simple Median | 1.01 | 1.00-1.03 | 0.127 |
|  | Weighted Median | 1.02 | 1.01-1.04 | 0.013 |
|  | MR Egger | 1.01 | 0.94-1.08 | 0.734 |
|  | Inverse variance weighted | 1.03 | 1.01-1.05 | 0.001 |
| WHR | Simple Median | 0.99 | 0.94-1.03 | 0.538 |
|  | Weighted Median | 0.99 | 0.94-1.04 | 0.613 |
|  | MR Egger | 1.03 | 0.84-1.25 | 0.800 |
|  | Inverse variance weighted | 0.95 | 0.90-0.99 | 0.035 |
| FBG | Simple Median | 0.96 | 0.93-1.00 | 0.026 |
|  | Weighted Median | 0.97 | 0.93-1.01 | 0.108 |
|  | MR Egger | 1.04 | 0.94-1.15 | 0.445 |
|  | Inverse variance weighted | 0.97 | 0.95-0.99 | 0.048 |
| HDL | Simple Median | 1.09 | 0.99-1.19 | 0.066 |
|  | Weighted Median | 1.08 | 0.98-1.18 | 0.113 |
|  | MR Egger | 1.22 | 0.97-1.55 | 0.091 |
|  | Inverse variance weighted | 1.08 | 1.02-1.15 | 0.011 |
| Age that started HRT | Simple Median | 1.06 | 1.02-1.10 | 0.003 |
|  | Weighted Median | 1.06 | 1.03-1.10 | 0.001 |
|  | MR Egger | 1.06 | 0.92-1.23 | 0.411 |
|  | Inverse variance weighted | 1.05 | 1.01-1.09 | 0.008 |

MR: Mendelian randomization; AAM: Age at menarche; OR: Odds ratio; CI: Confidence interval; HbA1c: Hemoglobin A1c; SBP: Systolic blood pressure; TG: Triglycerides; WHR: Waist-hip-ratio; HDL: High-density lipoprotein; HRT: Hormone-replacement therapy.

Table S25. Genetic estimates for the association of genetically-determined current smoking behavior with genetically predicted MI after adjusting for genetically predicted AAM.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Zka | σZkb | Yk c | σYk d | Xke | σXkf |
| 1 | rs10891481 | G | 0.008446 | 0.001363 | -9.32E-05 | 0.010418 | -0.0011 | 0.005448 |
| 2 | rs11096777 | C | 0.009903 | 0.001713 | 0.0031645 | 0.013598 | 3.00E-04 | 0.007977 |
| 3 | rs11210887 | A | -0.00955 | 0.001441 | -0.020575 | 0.010868 | 0.028 | 0.0063 |
| 4 | rs113382419 | A | 0.021268 | 0.002099 | 0.0165489 | 0.020816 | 0.027 | 0.013147 |
| 5 | rs17730481 | A | 0.008563 | 0.001422 | 0.0035701 | 0.01142 | 0.0048 | 0.006354 |
| 6 | rs3773814 | C | 0.010087 | 0.001838 | 0.0334613 | 0.014526 | -0.0025 | 0.007533 |
| 7 | rs62474713 | A | -0.00868 | 0.001324 | -0.006412 | 0.010216 | -0.003 | 0.005568 |
| 8 | rs73227362 | C | -0.00982 | 0.001665 | -0.018759 | 0.013009 | 0.0015 | 0.00743 |
| 9 | rs7726560 | T | 0.007457 | 0.001333 | 0.0018321 | 0.010475 | -4.00E-04 | 0.005314 |
| 10 | rs7807019 | G | 0.007598 | 0.001327 | 0.0210339 | 0.010215 | 0.0089 | 0.005724 |
| 11 | rs8033799 | C | 0.008913 | 0.001622 | -0.008355 | 0.013341 | -0.014 | 0.006918 |

MI: Myocardial infarction; AAM: Age at menarche; SNPs: Single nucleotide polymorphisms.

a Effect size of each allele on genetically-determined current smoking behavior (pack-years per allele)

b Standard error of the genetic association of each effect allele with genetically-determined current smoking behavior

c Effect size per allele in the log-odds or the log probability of MI after adjusting for genetically predicted AAM

d Standard error of the genetic association of each effect allele with genetically predicted MI after adjusting for genetically predicted AAM

e Effect size per allele in AAM (in years)

f Standard error of the genetic association of each effect allele with genetically predicted AAM

Table S26. Genetic estimates for the association of genetically-determined HbA1c with genetically predicted MI after adjusting for genetically predicted AAM.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Zka | σZkb | Yk c | σYk d | Xke | σXkf |
| 1 | rs1004558 | T | 0.44709 | 0.020003 | 0.010855 | 0.0137 | 0.0046 | 0.008098 |
| 2 | rs1044145 | C | 0.085473 | 0.015431 | -0.00946 | 0.010435 | 0.0066 | 0.005859 |
| 3 | rs10487796 | A | -0.16103 | 0.015411 | -0.00675 | 0.010297 | 0.0033 | 0.005662 |
| 4 | rs10733564 | G | -0.12746 | 0.022684 | -0.04637 | 0.016097 | 0.01 | 0.00985 |
| 5 | rs10758658 | A | -0.13066 | 0.019186 | -0.01796 | 0.013112 | -0.012 | 0.007508 |
| 6 | rs10784889 | T | -0.08716 | 0.015611 | -0.00292 | 0.010553 | 0.0041 | 0.005675 |
| 7 | rs10811660 | A | -0.30869 | 0.020265 | -0.002 | 0.013723 | 0.0084 | 0.008105 |
| 8 | rs10830963 | G | 0.29735 | 0.017141 | 0.022073 | 0.011736 | 0.012 | 0.007252 |
| 9 | rs10842987 | C | -0.1624 | 0.019136 | 0.005159 | 0.013354 | 0.0047 | 0.007134 |
| 10 | rs10873398 | A | -0.09381 | 0.016088 | -0.01834 | 0.01101 | 0.0014 | 0.006153 |
| 11 | rs11039165 | G | -0.13326 | 0.017253 | 0.015414 | 0.012448 | -0.0089 | 0.006486 |
| 12 | rs11065979 | T | -0.10915 | 0.015494 | 0.072748 | 0.01193 | -0.0066 | 0.005983 |
| 13 | rs11204535 | G | -0.10312 | 0.017401 | 0.026661 | 0.011664 | 0.0024 | 0.008209 |
| 14 | rs1121980 | A | 0.15492 | 0.015526 | 0.022913 | 0.010506 | 0.041 | 0.005868 |
| 15 | rs11257655 | T | 0.21882 | 0.018898 | 0.021494 | 0.012199 | 0.0036 | 0.00726 |
| 16 | rs11580608 | T | 0.12292 | 0.016481 | 0.016919 | 0.011414 | -0.0027 | 0.006138 |
| 17 | rs11602873 | T | -0.18717 | 0.021037 | -0.02511 | 0.014153 | 0.0017 | 0.007918 |
| 18 | rs11708067 | G | -0.26157 | 0.01782 | -0.00718 | 0.012893 | -0.0047 | 0.007134 |
| 19 | rs1175550 | G | -0.17719 | 0.01848 | -0.01056 | 0.013118 | -0.013 | 0.007326 |
| 20 | rs117721418 | T | -0.1915 | 0.028111 | -0.01715 | 0.021988 | -0.014 | 0.010682 |
| 21 | rs1215468 | G | -0.13265 | 0.016939 | -0.00862 | 0.011851 | 0.0037 | 0.006348 |
| 22 | rs12210538 | G | -0.12788 | 0.018075 | -0.00353 | 0.013675 | 0.032 | 0.011088 |
| 23 | rs12365580 | A | -0.12988 | 0.021566 | -0.03285 | 0.014002 | 0.0023 | 0.008234 |
| 24 | rs12448999 | A | -0.08609 | 0.01556 | 0.000906 | 0.010328 | 0.01 | 0.005655 |
| 25 | rs12451511 | G | 0.10704 | 0.019364 | 0.033819 | 0.01235 | 0.0054 | 0.007474 |
| 26 | rs12600858 | A | -0.1311 | 0.01843 | -0.01144 | 0.011564 | -0.0024 | 0.006695 |
| 27 | rs12633493 | T | 0.11715 | 0.015626 | 0.017504 | 0.010503 | 5.00E-04 | 0.005692 |
| 28 | rs12668254 | G | -0.20599 | 0.028435 | 0.015258 | 0.019054 | -0.013 | 0.01083 |
| 29 | rs12910361 | G | 0.1614 | 0.016961 | 0.016738 | 0.010837 | 0.019 | 0.00638 |
| 30 | rs12912009 | A | -0.14568 | 0.017227 | -0.00429 | 0.011712 | -0.0085 | 0.006486 |
| 31 | rs12984096 | C | 0.21315 | 0.015735 | -0.00755 | 0.010706 | 0.0081 | 0.00632 |
| 32 | rs13019832 | A | -0.12765 | 0.015588 | -0.01056 | 0.01104 | -0.013 | 0.005718 |
| 33 | rs13042148 | T | 0.11857 | 0.021217 | 0.005818 | 0.015932 | 6.00E-04 | 0.007971 |
| 34 | rs147208676 | T | 0.15993 | 0.028231 | -0.0096 | 0.020457 | -0.012 | 0.009997 |
| 35 | rs1496653 | G | -0.13138 | 0.019011 | 0.005735 | 0.01254 | 1.00E-04 | 0.007979 |
| 36 | rs1550026 | T | 0.10777 | 0.015667 | 0.000626 | 0.010979 | 0.0045 | 0.005702 |
| 37 | rs1574285 | T | -0.09232 | 0.01569 | 0.009377 | 0.010494 | 0.0075 | 0.005852 |
| 38 | rs1641523 | T | -0.12694 | 0.015571 | -0.00533 | 0.010974 | 0.0038 | 0.006201 |
| 39 | rs17168486 | T | 0.16157 | 0.020347 | 0.00717 | 0.012723 | -0.012 | 0.007508 |
| 40 | rs174549 | A | -0.10537 | 0.016576 | -0.02401 | 0.011688 | 5.00E-04 | 0.006643 |
| 41 | rs1787663 | A | 0.10095 | 0.016889 | -0.01311 | 0.012145 | -0.0015 | 0.006592 |
| 42 | rs1800562 | A | -0.5108 | 0.028482 | -0.04874 | 0.026825 | -5.00E-04 | 0.013295 |
| 43 | rs181204 | G | 0.11418 | 0.016399 | 0.018162 | 0.012227 | 0.0047 | 0.005828 |
| 44 | rs1905505 | A | -0.19336 | 0.017013 | -0.02975 | 0.011266 | 0.0052 | 0.006311 |
| 45 | rs1929915 | A | 0.14594 | 0.018823 | -0.03006 | 0.012682 | 0.014 | 0.007356 |
| 46 | rs198325 | T | -0.12324 | 0.01847 | 0.020015 | 0.0137 | -0.0051 | 0.006903 |
| 47 | rs1995138 | A | 0.17294 | 0.028937 | 0.033269 | 0.019955 | -0.0046 | 0.011153 |
| 48 | rs201886961 | T | -0.11206 | 0.01727 | 0.016909 | 0.01117 | -0.0078 | 0.006222 |
| 49 | rs229587 | T | 0.12193 | 0.016377 | 0.006077 | 0.010916 | -0.0015 | 0.006239 |
| 50 | rs2305196 | A | -0.15241 | 0.017432 | 0.010936 | 0.011669 | -0.0045 | 0.006672 |
| 51 | rs2487569 | T | 0.15133 | 0.024673 | 0.00647 | 0.019166 | -0.0021 | 0.009229 |
| 52 | rs2737263 | T | -0.11708 | 0.01701 | 0.005037 | 0.011656 | -0.0015 | 0.006592 |
| 53 | rs2796441 | A | -0.09636 | 0.015513 | -0.01063 | 0.010769 | 0.018 | 0.006219 |
| 54 | rs28504375 | A | -0.23087 | 0.016693 | 0.010487 | 0.011768 | -0.003 | 0.006414 |
| 55 | rs2925979 | C | -0.11956 | 0.016725 | -0.01205 | 0.011783 | 0.0057 | 0.006227 |
| 56 | rs2943640 | C | 0.1491 | 0.016089 | 0.041048 | 0.011261 | 0.0044 | 0.005955 |
| 57 | rs2954021 | G | 0.095504 | 0.015352 | -0.04696 | 0.010153 | -2.00E-04 | 0.005318 |
| 58 | rs3020069 | A | 0.093396 | 0.01649 | -0.01247 | 0.010945 | 0.0012 | 0.006345 |
| 59 | rs33978622 | C | -0.11579 | 0.016391 | 0.00058 | 0.01206 | -0.0073 | 0.006346 |
| 60 | rs340882 | G | 0.18618 | 0.015886 | -0.00296 | 0.010429 | 0.011 | 0.005709 |
| 61 | rs34872471 | C | 0.47526 | 0.016882 | 0.024941 | 0.011353 | -0.009 | 0.006405 |
| 62 | rs368865 | G | 0.1045 | 0.017151 | -0.01961 | 0.012584 | 0.0058 | 0.006747 |
| 63 | rs376563 | C | 0.096419 | 0.01539 | 0.030295 | 0.010203 | 0.0068 | 0.005665 |
| 64 | rs3927482 | G | 0.12184 | 0.020197 | 0.007952 | 0.016458 | -0.013 | 0.009252 |
| 65 | rs415895 | G | -0.13765 | 0.016036 | 0.033314 | 0.010754 | -0.0092 | 0.005917 |
| 66 | rs45504994 | G | -0.09728 | 0.015389 | -0.027 | 0.01023 | -0.0094 | 0.005681 |
| 67 | rs4611812 | T | -0.0987 | 0.015682 | 0.009565 | 0.01068 | -0.0047 | 0.006087 |
| 68 | rs4689394 | G | 0.14488 | 0.015673 | 0.001311 | 0.010998 | 0.0074 | 0.005774 |
| 69 | rs4698874 | C | -0.10502 | 0.015359 | 0.003994 | 0.010085 | 0.0037 | 0.005751 |
| 70 | rs4745982 | G | -1.0375 | 0.029209 | -0.04505 | 0.025543 | -0.03 | 0.016498 |
| 71 | rs4809556 | A | -0.08715 | 0.015637 | -0.00969 | 0.011792 | -0.0067 | 0.006074 |
| 72 | rs4889490 | T | -0.09002 | 0.015729 | 0.000858 | 0.011696 | -0.0075 | 0.005983 |
| 73 | rs4905989 | A | -0.14001 | 0.020779 | -0.01599 | 0.012767 | 0.025 | 0.008424 |
| 74 | rs4972439 | C | -0.14035 | 0.018551 | 0.015943 | 0.012356 | -0.0054 | 0.006993 |
| 75 | rs555895 | G | 0.10458 | 0.016063 | -0.00191 | 0.010944 | 0.0063 | 0.006079 |
| 76 | rs55966194 | G | -0.13601 | 0.017023 | -0.00998 | 0.011996 | -0.004 | 0.006863 |
| 77 | rs560887 | C | 0.40038 | 0.016716 | -0.0051 | 0.012225 | -0.014 | 0.006246 |
| 78 | rs56397034 | C | -0.11569 | 0.015683 | -0.02313 | 0.011139 | -0.021 | 0.00621 |
| 79 | rs594398 | C | 0.086064 | 0.015375 | 0.031198 | 0.010363 | -0.021 | 0.005718 |
| 80 | rs60238952 | G | -0.10404 | 0.018626 | -0.0377 | 0.011781 | 0.0082 | 0.007434 |
| 81 | rs61750929 | T | -0.43693 | 0.033677 | -0.02645 | 0.024136 | -0.014 | 0.012959 |
| 82 | rs61850681 | A | -0.16614 | 0.018084 | -0.0158 | 0.013305 | -0.011 | 0.007075 |
| 83 | rs6602900 | G | -0.16892 | 0.018688 | -0.03959 | 0.017037 | 0.004 | 0.007228 |
| 84 | rs66593272 | T | -0.54055 | 0.040328 | 0.025364 | 0.029517 | 0.012 | 0.017791 |
| 85 | rs67131976 | T | 0.28395 | 0.020297 | 0.013158 | 0.012656 | -0.015 | 0.007653 |
| 86 | rs6726007 | T | -0.10831 | 0.015378 | 0.011612 | 0.010614 | 0.0062 | 0.005739 |
| 87 | rs6784925 | T | -0.0934 | 0.015409 | 0.002767 | 0.010283 | -0.0094 | 0.005715 |
| 88 | rs6785881 | T | -0.10646 | 0.015374 | -0.00584 | 0.010353 | -0.0015 | 0.005633 |
| 89 | rs6878122 | A | -0.13225 | 0.016459 | -0.0212 | 0.012493 | -0.0021 | 0.006874 |
| 90 | rs6920313 | C | 0.095312 | 0.016651 | 0.004249 | 0.010788 | -0.0032 | 0.006102 |
| 91 | rs6953344 | G | 0.10983 | 0.017821 | 0.008858 | 0.011559 | -0.01 | 0.006605 |
| 92 | rs7077479 | A | 0.10373 | 0.016555 | -0.00394 | 0.01103 | 0.0012 | 0.005944 |
| 93 | rs7105853 | A | 0.13366 | 0.023019 | 0.00454 | 0.017195 | 0.014 | 0.009486 |
| 94 | rs7124355 | G | -0.1 | 0.016451 | -0.01545 | 0.01089 | 5.00E-04 | 0.006643 |
| 95 | rs7151822 | C | -0.15893 | 0.017827 | -0.00488 | 0.011241 | -0.016 | 0.006442 |
| 96 | rs7196917 | G | 0.095553 | 0.015504 | 0.01486 | 0.010277 | 0.029 | 0.005901 |
| 97 | rs7206953 | C | -0.1082 | 0.017398 | -0.00188 | 0.011732 | 0.01 | 0.006432 |
| 98 | rs72781658 | G | 0.20186 | 0.022514 | 0.021922 | 0.015396 | -0.0047 | 0.008723 |
| 99 | rs72802358 | C | -0.15063 | 0.025538 | -0.04437 | 0.017895 | -0.0056 | 0.008917 |
| 100 | rs7513688 | A | 0.10972 | 0.016014 | -0.00115 | 0.01079 | 0.014 | 0.006246 |
| 101 | rs7528296 | C | -0.09937 | 0.015818 | -0.0011 | 0.010716 | 0.0059 | 0.005812 |
| 102 | rs75372982 | G | -0.10827 | 0.017165 | -0.01184 | 0.011265 | -0.0041 | 0.006529 |
| 103 | rs76702117 | G | 0.2271 | 0.039114 | 0.009499 | 0.026201 | -0.0067 | 0.014326 |
| 104 | rs7720275 | C | 0.12178 | 0.02043 | 0.000342 | 0.0142 | -0.018 | 0.008244 |
| 105 | rs780093 | C | 0.15748 | 0.015777 | 0.002801 | 0.010608 | 0.017 | 0.005938 |
| 106 | rs78588343 | A | -0.1647 | 0.020022 | -0.02175 | 0.015066 | 0.014 | 0.007782 |
| 107 | rs7898054 | T | -0.18945 | 0.015808 | -0.0187 | 0.010595 | -0.013 | 0.005991 |
| 108 | rs8000868 | T | 0.16963 | 0.020974 | 0.012937 | 0.015122 | 0.0011 | 0.007953 |
| 109 | rs8002606 | G | 0.17541 | 0.020599 | 0.009351 | 0.014098 | -0.0012 | 0.007949 |
| 110 | rs8068844 | C | 0.097508 | 0.016183 | 0.044662 | 0.010687 | -0.016 | 0.006152 |
| 111 | rs838717 | A | 0.10064 | 0.0155 | -0.01014 | 0.010217 | 0.0049 | 0.0057 |
| 112 | rs855791 | G | -0.25462 | 0.015509 | -0.01081 | 0.010579 | 0.0029 | 0.005849 |
| 113 | rs857721 | A | 0.37763 | 0.017303 | -0.01473 | 0.011711 | 0.0026 | 0.006748 |
| 114 | rs9376091 | T | -0.17628 | 0.01755 | -0.01829 | 0.012377 | -0.0044 | 0.006374 |
| 115 | rs9701805 | C | -0.22065 | 0.026826 | -0.04789 | 0.018521 | -0.0014 | 0.010123 |
| 116 | rs9900803 | T | -0.16892 | 0.016657 | -0.03279 | 0.010984 | 0.0032 | 0.006102 |
| 117 | rs9901806 | T | -0.08609 | 0.01568 | 0.01983 | 0.010824 | 0.0019 | 0.005963 |
| 118 | rs998584 | A | 0.12424 | 0.015384 | 0.047772 | 0.011036 | 0.0012 | 0.007332 |

HbA1c: Hemoglobin A1c; MI: Myocardial infarction; AAM: Age at menarche; SNPs: Single nucleotide polymorphisms.

a Effect size of each allele on genetically-determined HbA1c (percentage point per allele)

b Standard error of the genetic association of each effect allele with genetically-determined HbA1c

c Effect size per allele in the log-odds or the log probability of MI after adjusting for genetically predicted AAM

d Standard error of the genetic association of each effect allele with genetically predicted MI after adjusting for genetically predicted AAM

e Effect size per allele in AAM (in years)

f Standard error of the genetic association of each effect allele with genetically predicted AAM

Table S27. Genetic estimates for the association of genetically-determined SBP with genetically predicted MI after adjusting for genetically predicted AAM.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Zka | σZkb | Yk c | σYk d | Xke | σXkf |
| 1 | rs1000423 | T | 0.017808 | 0.002788 | 0.020222 | 0.011662 | -5.00E-04 | 0.007974 |
| 2 | rs10029530 | T | -0.01903 | 0.002597 | -0.03797 | 0.010547 | -0.0036 | 0.006177 |
| 3 | rs10048404 | T | -0.01493 | 0.002547 | -0.00679 | 0.011059 | 0.0056 | 0.007096 |
| 4 | rs10269774 | A | -0.02078 | 0.002631 | -0.01531 | 0.011469 | -0.0096 | 0.006007 |
| 5 | rs10409243 | T | -0.01536 | 0.002544 | -0.01297 | 0.011004 | 0.0032 | 0.005939 |
| 6 | rs1047891 | A | -0.01612 | 0.002646 | -0.01106 | 0.011567 | 0.0016 | 0.00846 |
| 7 | rs10769253 | A | -0.02394 | 0.003231 | 0.010299 | 0.012985 | -0.023 | 0.007638 |
| 8 | rs10817007 | G | 0.022057 | 0.00368 | 0.031747 | 0.014635 | -0.016 | 0.014505 |
| 9 | rs10853912 | T | 0.015436 | 0.00252 | 0.01658 | 0.01041 | -0.0022 | 0.005916 |
| 10 | rs10857147 | T | 0.037123 | 0.002713 | 0.055613 | 0.012145 | -0.014 | 0.007699 |
| 11 | rs10883543 | T | 0.031002 | 0.003921 | -0.01934 | 0.018306 | 7.00E-04 | 0.0093 |
| 12 | rs10883948 | T | -0.01354 | 0.00246 | 0.02497 | 0.010288 | 0.0063 | 0.005593 |
| 13 | rs11070245 | G | 0.016523 | 0.002471 | -0.0075 | 0.010316 | -0.006 | 0.005789 |
| 14 | rs11191580 | C | -0.0511 | 0.004608 | -0.07286 | 0.015849 | -0.01 | 0.00985 |
| 15 | rs11214436 | T | -0.0155 | 0.002538 | 0.000329 | 0.01046 | -0.0018 | 0.005892 |
| 16 | rs11629120 | C | 0.013985 | 0.002508 | -0.02032 | 0.010888 | 0.0082 | 0.005836 |
| 17 | rs11874246 | T | 0.016884 | 0.0027 | 0.017607 | 0.010925 | 0.0039 | 0.006364 |
| 18 | rs12258967 | G | -0.03144 | 0.002693 | -0.02937 | 0.012205 | 0.0077 | 0.006278 |
| 19 | rs1250259 | A | -0.01885 | 0.002795 | -0.03203 | 0.011472 | -0.0092 | 0.006705 |
| 20 | rs12656497 | C | 0.031728 | 0.002508 | 0.005251 | 0.010358 | -0.007 | 0.005707 |
| 21 | rs12694861 | A | 0.013713 | 0.002511 | -0.01718 | 0.010496 | 0.0018 | 0.005892 |
| 22 | rs12714414 | C | -0.01966 | 0.00356 | -0.02139 | 0.013882 | -0.05 | 0.007749 |
| 23 | rs12967060 | T | 0.016679 | 0.002789 | -0.00894 | 0.012036 | 0.0047 | 0.006968 |
| 24 | rs13016772 | T | 0.016147 | 0.002892 | 0.010487 | 0.011436 | 0.0066 | 0.006775 |
| 25 | rs13154549 | G | 0.030453 | 0.004909 | 0.02766 | 0.020666 | -0.033 | 0.011267 |
| 26 | rs13436194 | G | -0.01855 | 0.002486 | -0.02872 | 0.010244 | -0.01 | 0.005712 |
| 27 | rs138110118 | G | -0.0239 | 0.003908 | 0.02855 | 0.022275 | -0.0024 | 0.008592 |
| 28 | rs1438898 | C | 0.015766 | 0.002848 | -0.0186 | 0.012141 | 0.0076 | 0.006607 |
| 29 | rs144356415 | G | 0.036359 | 0.00629 | -0.06472 | 0.025153 | 0.0099 | 0.012821 |
| 30 | rs1543270 | T | -0.01586 | 0.002475 | 0.013875 | 0.010423 | -0.0087 | 0.005746 |
| 31 | rs1644318 | C | 0.019146 | 0.002539 | 0.015745 | 0.010606 | -0.0021 | 0.005858 |
| 32 | rs167479 | T | -0.02702 | 0.002461 | -0.01281 | 0.015817 | 0.0078 | 0.013383 |
| 33 | rs17056301 | C | 0.018768 | 0.002833 | 0.01665 | 0.011163 | 0.007 | 0.006616 |
| 34 | rs17173238 | G | 0.015442 | 0.002721 | 0.00912 | 0.012513 | 0.0056 | 0.007929 |
| 35 | rs17535443 | A | -0.02169 | 0.002754 | -0.0307 | 0.012275 | -0.017 | 0.006347 |
| 36 | rs17677603 | G | 0.017989 | 0.002528 | 0.023991 | 0.01062 | -0.014 | 0.005969 |
| 37 | rs17759661 | A | 0.017636 | 0.002461 | 0.014768 | 0.010351 | -0.0048 | 0.005703 |
| 38 | rs1887320 | A | 0.018943 | 0.002466 | 0.011519 | 0.010154 | 8.00E-04 | 0.005299 |
| 39 | rs1925148 | G | -0.01397 | 0.00248 | -0.01322 | 0.010537 | 1.00E-04 | 0.007979 |
| 40 | rs2004283 | G | -0.01367 | 0.00249 | -0.00442 | 0.011156 | 0.0038 | 0.005768 |
| 41 | rs2004776 | T | 0.019916 | 0.002882 | 0.034543 | 0.011395 | -0.0027 | 0.006769 |
| 42 | rs2017199 | A | -0.01472 | 0.002696 | 0.004334 | 0.011666 | -0.011 | 0.006178 |
| 43 | rs2052691 | A | 0.018941 | 0.002717 | -0.02453 | 0.012537 | -0.0028 | 0.00657 |
| 44 | rs2076328 | T | -0.01405 | 0.002466 | -0.00399 | 0.011429 | -0.0048 | 0.005703 |
| 45 | rs2102397 | C | -0.0178 | 0.002464 | 0.006497 | 0.011214 | 0.0026 | 0.005559 |
| 46 | rs210630 | G | -0.01553 | 0.002462 | -0.00918 | 0.010279 | -0.0068 | 0.005665 |
| 47 | rs2177843 | T | 0.023575 | 0.003496 | 0.007311 | 0.013957 | -0.0076 | 0.008303 |
| 48 | rs2249105 | G | -0.01803 | 0.002555 | 0.000646 | 0.010467 | -0.017 | 0.005767 |
| 49 | rs2274224 | C | -0.02466 | 0.002482 | 0.019105 | 0.010364 | 0.0057 | 0.005732 |
| 50 | rs2301597 | C | -0.023 | 0.002494 | -0.00103 | 0.010311 | -0.015 | 0.005792 |
| 51 | rs2303083 | A | -0.02418 | 0.003111 | -0.01388 | 0.013807 | 0.012 | 0.007718 |
| 52 | rs2306526 | T | -0.0157 | 0.002462 | -0.0135 | 0.010418 | 0.0072 | 0.005618 |
| 53 | rs2379829 | C | -0.01678 | 0.002777 | -0.0205 | 0.011531 | 0.011 | 0.007075 |
| 54 | rs2447607 | T | 0.017354 | 0.002538 | 0.011312 | 0.010436 | 0.008 | 0.006104 |
| 55 | rs2469997 | C | -0.0196 | 0.003172 | 0.003502 | 0.013987 | -0.0094 | 0.007664 |
| 56 | rs2472299 | G | -0.02167 | 0.002763 | -0.03656 | 0.010953 | -0.0048 | 0.006354 |
| 57 | rs2493296 | T | 0.024408 | 0.003582 | 0.059564 | 0.016231 | 0.0033 | 0.009944 |
| 58 | rs2627316 | G | 0.019349 | 0.002465 | 0.007339 | 0.011051 | 0.0079 | 0.005757 |
| 59 | rs2721800 | C | -0.01812 | 0.003224 | -0.00384 | 0.014497 | 0.0056 | 0.007751 |
| 60 | rs2782980 | C | 0.020191 | 0.002741 | 0.021764 | 0.01179 | 8.00E-04 | 0.007077 |
| 61 | rs28667801 | T | 0.013983 | 0.002515 | 0.00662 | 0.010732 | -0.0057 | 0.005974 |
| 62 | rs2892796 | A | -0.027 | 0.0046 | -0.01111 | 0.018003 | -0.0035 | 0.010984 |
| 63 | rs2971608 | C | 0.020858 | 0.002975 | -0.05119 | 0.012289 | -0.0047 | 0.007306 |
| 64 | rs2977334 | T | 0.016376 | 0.002508 | 0.016531 | 0.010257 | 0.018 | 0.005825 |
| 65 | rs3184504 | C | -0.02148 | 0.002461 | -0.07334 | 0.01166 | 0.0092 | 0.005593 |
| 66 | rs3211995 | A | -0.01992 | 0.003378 | 0.007416 | 0.015773 | -8.00E-04 | 0.009107 |
| 67 | rs34727427 | C | 0.01478 | 0.00264 | -0.0059 | 0.011887 | 0.0083 | 0.006333 |
| 68 | rs34896506 | C | 0.021064 | 0.003223 | 0.01556 | 0.01242 | 0.0015 | 0.00743 |
| 69 | rs35021474 | G | -0.0224 | 0.002536 | 0.013394 | 0.011498 | -0.0065 | 0.006403 |
| 70 | rs35224044 | T | 0.014976 | 0.002497 | -0.00422 | 0.01114 | -0.0077 | 0.005875 |
| 71 | rs35443 | C | -0.01831 | 0.002525 | -0.00083 | 0.010666 | -0.0059 | 0.005933 |
| 72 | rs365990 | G | -0.01665 | 0.002544 | -0.01691 | 0.011411 | 0.0036 | 0.006022 |
| 73 | rs3781885 | T | -0.01468 | 0.002654 | -0.00524 | 0.011544 | 0.015 | 0.006227 |
| 74 | rs3817581 | T | 0.018524 | 0.002463 | 0.022416 | 0.010397 | -0.0033 | 0.005662 |
| 75 | rs3826537 | G | 0.014316 | 0.002485 | -0.01445 | 0.011079 | -3.00E-04 | 0.005982 |
| 76 | rs4480845 | C | -0.01994 | 0.002578 | 0.016401 | 0.010842 | -0.0013 | 0.005713 |
| 77 | rs4639796 | A | 0.019328 | 0.003356 | -0.01412 | 0.013055 | 0.0019 | 0.0075 |
| 78 | rs4736135 | T | -0.0169 | 0.002751 | -0.00917 | 0.011809 | 0.0085 | 0.006633 |
| 79 | rs4759062 | T | -0.01527 | 0.002697 | -0.00997 | 0.011349 | 0.0036 | 0.006177 |
| 80 | rs4767332 | A | 0.015379 | 0.002499 | 0.009437 | 0.010633 | -6.00E-04 | 0.005308 |
| 81 | rs4843748 | A | -0.01549 | 0.002619 | -0.005 | 0.010832 | -0.016 | 0.006293 |
| 82 | rs488834 | T | -0.01687 | 0.002904 | -0.00695 | 0.013374 | 0.0044 | 0.007006 |
| 83 | rs4930676 | T | -0.02433 | 0.003963 | -0.02381 | 0.015099 | 0.015 | 0.009907 |
| 84 | rs4937515 | C | -0.02023 | 0.002523 | 0.00175 | 0.011296 | -4.00E-04 | 0.006379 |
| 85 | rs55925664 | A | 0.025681 | 0.00316 | 0.020079 | 0.013365 | 0.0099 | 0.007554 |
| 86 | rs56092448 | T | 0.022238 | 0.003859 | 0.020666 | 0.018356 | 0.01 | 0.009257 |
| 87 | rs6026742 | A | 0.031569 | 0.003833 | 0.05273 | 0.016076 | -0.02 | 0.008984 |
| 88 | rs604723 | C | 0.033938 | 0.00277 | 0.02883 | 0.01118 | -0.0029 | 0.006391 |
| 89 | rs62368019 | C | 0.015966 | 0.002714 | 0.006424 | 0.011634 | 0.0059 | 0.006446 |
| 90 | rs62481856 | A | 0.043879 | 0.00309 | -0.00108 | 0.012319 | -0.013 | 0.009252 |
| 91 | rs6271 | T | -0.02886 | 0.004699 | -0.05477 | 0.029424 | 0.025 | 0.015643 |
| 92 | rs6461992 | G | 0.035501 | 0.00473 | -0.00945 | 0.019709 | -0.015 | 0.011966 |
| 93 | rs6504213 | C | 0.01545 | 0.002507 | 0.039933 | 0.011078 | 0.0084 | 0.005978 |
| 94 | rs6544667 | T | -0.01393 | 0.002532 | 0.007121 | 0.010739 | 0.0024 | 0.006017 |
| 95 | rs6690557 | G | -0.01511 | 0.002728 | -0.01619 | 0.011082 | -0.0066 | 0.006501 |
| 96 | rs6733889 | C | -0.01505 | 0.002537 | 0.00069 | 0.010398 | 0.0024 | 0.006017 |
| 97 | rs6734118 | A | -0.01896 | 0.002993 | -0.01433 | 0.011673 | -0.0062 | 0.007213 |
| 98 | rs6768542 | A | -0.02054 | 0.003395 | 0.009474 | 0.014044 | -0.0094 | 0.008171 |
| 99 | rs6911827 | T | 0.014685 | 0.00247 | 0.006126 | 0.010522 | -0.0046 | 0.005829 |
| 100 | rs691830 | G | 0.016941 | 0.002463 | 0.015436 | 0.010333 | -0.001 | 0.00567 |
| 101 | rs6983129 | A | -0.0198 | 0.002479 | 0.009201 | 0.010806 | -4.00E-04 | 0.005314 |
| 102 | rs709668 | G | 0.01783 | 0.003072 | 0.031998 | 0.012417 | 0.0018 | 0.007487 |
| 103 | rs7200432 | A | -0.01907 | 0.002693 | -0.01682 | 0.011248 | -0.0046 | 0.006367 |
| 104 | rs73437338 | C | -0.03765 | 0.003308 | 0.063906 | 0.012972 | 0.016 | 0.007751 |
| 105 | rs73563812 | T | -0.02106 | 0.0029 | -0.01153 | 0.011874 | -0.0066 | 0.006637 |
| 106 | rs743395 | T | 0.014613 | 0.002585 | 0.003474 | 0.011113 | 0.0019 | 0.006499 |
| 107 | rs7439366 | C | 0.015315 | 0.002469 | 0.000427 | 0.011315 | -9.00E-04 | 0.005961 |
| 108 | rs7753358 | A | 0.014439 | 0.002503 | 0.027802 | 0.010591 | 0.0078 | 0.005551 |
| 109 | rs7765526 | G | -0.01419 | 0.002496 | 0.013543 | 0.010692 | 3.00E-04 | 0.004784 |
| 110 | rs7798991 | C | 0.0157 | 0.002799 | 0.013946 | 0.011483 | -0.0086 | 0.006562 |
| 111 | rs78473917 | C | -0.01901 | 0.003462 | -0.03471 | 0.014571 | -0.01 | 0.008153 |
| 112 | rs786910 | G | -0.01633 | 0.002499 | -0.00148 | 0.010556 | -0.012 | 0.00566 |
| 113 | rs8121509 | C | -0.01567 | 0.002471 | -0.03186 | 0.011588 | 0.0055 | 0.007123 |
| 114 | rs9294987 | C | 0.013856 | 0.002479 | -0.0146 | 0.011145 | -1.00E-04 | 0.007979 |
| 115 | rs9349379 | G | -0.01381 | 0.002505 | 0.130965 | 0.01065 | -0.0095 | 0.006599 |
| 116 | rs9385405 | C | 0.022515 | 0.002475 | 0.00177 | 0.010247 | 0.0065 | 0.005893 |
| 117 | rs9476307 | G | -0.0144 | 0.002503 | -0.00825 | 0.010659 | -0.0019 | 0.005963 |
| 118 | rs9888615 | C | 0.016954 | 0.002723 | 0.008668 | 0.011376 | -0.003 | 0.006414 |

SBP: Systolic blood pressure; MI: Myocardial infarction; AAM: Age at menarche; SNPs: Single nucleotide polymorphisms.

a Effect size of each allele on genetically-determined SBP (mmHg per allele)

b Standard error of the genetic association of each effect allele with genetically-determined SBP

c Effect size per allele in the log-odds or the log probability of MI after adjusting for genetically predicted AAM

d Standard error of the genetic association of each effect allele with genetically predicted MI after adjusting for genetically predicted AAM

e Effect size per allele in AAM (in years)

f Standard error of the genetic association of each effect allele with genetically predicted AAM

Table S28. Genetic estimates for the association of genetically-determined TG with genetically predicted MI after adjusting for genetically predicted AAM.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Zka | σZkb | Yk c | σYk d | Xke | σXkf |
| 1 | rs10040328 | A | 0.015304 | 0.002638 | 0.00986 | 0.011728 | -0.013 | 0.006662 |
| 2 | rs1009590 | C | 0.024721 | 0.004177 | -0.00944 | 0.018658 | 0.0071 | 0.011306 |
| 3 | rs10405944 | C | -0.01303 | 0.002358 | -0.0083 | 0.011835 | -0.012 | 0.00674 |
| 4 | rs1044808 | C | -0.02819 | 0.004206 | -0.00662 | 0.024555 | -0.0059 | 0.013002 |
| 5 | rs1045241 | T | -0.02232 | 0.002625 | -0.02081 | 0.011704 | -0.0078 | 0.006638 |
| 6 | rs10772947 | G | -0.01368 | 0.002324 | 0.000284 | 0.010512 | 0.0085 | 0.005905 |
| 7 | rs10797119 | C | 0.017236 | 0.002338 | 0.022744 | 0.010392 | 0.02 | 0.0057 |
| 8 | rs10838681 | A | -0.02629 | 0.002614 | 0.019958 | 0.011544 | -0.0089 | 0.006334 |
| 9 | rs10851698 | T | 0.016157 | 0.002648 | 0.005462 | 0.011544 | 0.008 | 0.006522 |
| 10 | rs10872003 | A | -0.01308 | 0.002337 | 0.002575 | 0.010771 | -0.0039 | 0.00565 |
| 11 | rs10957299 | G | -0.01303 | 0.002342 | -0.01072 | 0.010365 | 0.0091 | 0.005694 |
| 12 | rs11030107 | G | 0.016587 | 0.00263 | 0.020543 | 0.01291 | 0.034 | 0.006644 |
| 13 | rs11045171 | G | -0.0286 | 0.002927 | -0.00077 | 0.013901 | -0.0046 | 0.008098 |
| 14 | rs11078597 | C | 0.020328 | 0.002976 | -0.00798 | 0.013707 | 0.0068 | 0.010082 |
| 15 | rs11122450 | G | -0.04754 | 0.002383 | -0.02424 | 0.01046 | -0.0082 | 0.006116 |
| 16 | rs11206374 | A | 0.025156 | 0.002781 | 0.018384 | 0.013282 | 0.0026 | 0.006992 |
| 17 | rs1128249 | T | -0.03706 | 0.002373 | -0.01074 | 0.010841 | -0.0034 | 0.005688 |
| 18 | rs11631625 | G | 0.014743 | 0.00265 | 0.014244 | 0.011717 | 0.0034 | 0.006484 |
| 19 | rs11705483 | A | 0.023944 | 0.00369 | 0.040333 | 0.017673 | 0.014 | 0.009246 |
| 20 | rs11722924 | C | 0.013532 | 0.002324 | -0.01181 | 0.010278 | 0.0027 | 0.005773 |
| 21 | rs11752394 | G | 0.017287 | 0.002735 | -0.00045 | 0.011768 | 0.011 | 0.007265 |
| 22 | rs12088739 | G | -0.02732 | 0.00404 | -0.05375 | 0.018939 | 0.001 | 0.009957 |
| 23 | rs12119979 | G | 0.020736 | 0.002328 | 0.005646 | 0.01028 | 0.0041 | 0.005675 |
| 24 | rs12281051 | C | 0.070032 | 0.010053 | 0.018099 | 0.035391 | -0.0049 | 0.022822 |
| 25 | rs12424054 | A | 0.019019 | 0.002739 | -0.00174 | 0.012248 | 6.00E-04 | 0.00683 |
| 26 | rs12446515 | T | -0.03551 | 0.002486 | -0.02643 | 0.011528 | 0.0024 | 0.006229 |
| 27 | rs12480662 | T | -0.01547 | 0.002687 | -0.01623 | 0.01284 | 0.0024 | 0.006695 |
| 28 | rs12541912 | C | -0.09644 | 0.002547 | -0.02582 | 0.011951 | -0.0038 | 0.006201 |
| 29 | rs12686780 | T | 0.016979 | 0.003061 | 0.001049 | 0.012392 | -0.009 | 0.007824 |
| 30 | rs1279840 | C | 0.028006 | 0.002684 | 0.025146 | 0.012329 | 0.0028 | 0.00702 |
| 31 | rs12868517 | G | -0.01482 | 0.002714 | 0.01268 | 0.011256 | -0.0054 | 0.006554 |
| 32 | rs13234131 | G | -0.12951 | 0.003448 | 0.010422 | 0.016854 | 0.0056 | 0.009608 |
| 33 | rs13269725 | G | 0.03532 | 0.004292 | 0.007305 | 0.017975 | -0.0069 | 0.010987 |
| 34 | rs13273454 | T | -0.05507 | 0.002327 | -0.02886 | 0.011231 | -0.0095 | 0.005944 |
| 35 | rs1340819 | C | -0.01346 | 0.002439 | -0.00054 | 0.011448 | 0.0058 | 0.006079 |
| 36 | rs1420384 | T | -0.01438 | 0.002465 | -0.00105 | 0.010796 | 0.01 | 0.00608 |
| 37 | rs142047875 | T | -0.01339 | 0.002372 | -0.02349 | 0.010403 | 0.0047 | 0.005955 |
| 38 | rs1471251 | T | 0.038485 | 0.002374 | 0.013554 | 0.011014 | -0.0013 | 0.005713 |
| 39 | rs1473886 | T | -0.01856 | 0.002323 | 0.022777 | 0.010236 | -0.0058 | 0.005596 |
| 40 | rs149142833 | T | 0.01933 | 0.003222 | 0.009455 | 0.01579 | 6.00E-04 | 0.007971 |
| 41 | rs154735 | A | 0.028025 | 0.004793 | -0.00897 | 0.019926 | -0.012 | 0.01182 |
| 42 | rs1549293 | T | -0.01572 | 0.002426 | -0.00568 | 0.011303 | -0.014 | 0.005637 |
| 43 | rs1644005 | C | -0.01437 | 0.002413 | -0.00524 | 0.011322 | 0.0086 | 0.005974 |
| 44 | rs1684608 | A | 0.01824 | 0.002945 | 0.003262 | 0.013177 | 0.002 | 0.00751 |
| 45 | rs1688043 | T | 0.028631 | 0.004665 | -0.02746 | 0.017899 | -0.018 | 0.011577 |
| 46 | rs17052058 | G | -0.03187 | 0.003006 | -0.00823 | 0.014401 | -0.027 | 0.007836 |
| 47 | rs17138358 | C | 0.018621 | 0.002374 | -0.01526 | 0.01036 | -0.012 | 0.005692 |
| 48 | rs17311740 | T | -0.02642 | 0.004631 | 0.012304 | 0.024673 | 0.0088 | 0.01218 |
| 49 | rs17326656 | T | 0.016275 | 0.002733 | 0.005844 | 0.013143 | 0.0064 | 0.006848 |
| 50 | rs174574 | C | -0.0512 | 0.002429 | 0.021068 | 0.011221 | 0.002 | 0.006841 |
| 51 | rs17496249 | G | -0.01379 | 0.002344 | -0.02543 | 0.010243 | 0.0062 | 0.005621 |
| 52 | rs17699425 | A | -0.028 | 0.004949 | 0.047418 | 0.025724 | 0.015 | 0.01223 |
| 53 | rs1790099 | T | 0.016651 | 0.002564 | 0.010012 | 0.011853 | -0.018 | 0.006524 |
| 54 | rs1800978 | G | -0.02552 | 0.003533 | -0.04313 | 0.014765 | 0.001 | 0.009957 |
| 55 | rs1853413 | G | -0.01411 | 0.002446 | -0.00038 | 0.011 | 0.012 | 0.006355 |
| 56 | rs1924485 | T | -0.0205 | 0.003431 | -0.00092 | 0.013581 | -0.011 | 0.008393 |
| 57 | rs1928496 | T | 0.01667 | 0.002647 | -0.00677 | 0.012339 | -0.0036 | 0.006505 |
| 58 | rs199607859 | T | -0.02937 | 0.002368 | -0.00462 | 0.010708 | -0.012 | 0.006254 |
| 59 | rs199795230 | T | 0.026592 | 0.003184 | -0.03396 | 0.013887 | -0.002 | 0.00751 |
| 60 | rs2068888 | A | -0.03081 | 0.002329 | -0.0433 | 0.01085 | 0.0073 | 0.005823 |
| 61 | rs2070971 | T | 0.024664 | 0.00338 | -0.00293 | 0.015149 | 0.0058 | 0.009236 |
| 62 | rs2071887 | A | 0.016832 | 0.002444 | -0.00807 | 0.010761 | 0.0089 | 0.006486 |
| 63 | rs2081687 | C | -0.02602 | 0.002453 | -0.00518 | 0.010852 | -0.0088 | 0.006113 |
| 64 | rs2114273 | C | 0.017083 | 0.002366 | -0.00021 | 0.010548 | 0.005 | 0.005941 |
| 65 | rs213479 | T | -0.01504 | 0.002336 | 0.001476 | 0.010611 | -9.00E-04 | 0.007162 |
| 66 | rs2139980 | A | -0.01488 | 0.00242 | -0.01075 | 0.010691 | 0.0031 | 0.006435 |
| 67 | rs2267373 | T | 0.022467 | 0.002352 | 0.006407 | 0.010386 | -0.011 | 0.005733 |
| 68 | rs2510344 | C | -0.01706 | 0.002323 | -0.01128 | 0.010216 | -0.0094 | 0.005647 |
| 69 | rs261342 | C | -0.04704 | 0.002812 | -0.03282 | 0.012069 | 0.0068 | 0.007276 |
| 70 | rs2652812 | T | -0.01825 | 0.002759 | -0.02542 | 0.011916 | 3.00E-04 | 0.007977 |
| 71 | rs2694913 | C | 0.014079 | 0.002425 | -0.00231 | 0.011013 | -0.0019 | 0.005725 |
| 72 | rs2699805 | A | -0.01851 | 0.002381 | -0.02707 | 0.010975 | 0.0037 | 0.006038 |
| 73 | rs2723067 | G | -0.01981 | 0.002359 | 0.009884 | 0.010994 | -0.021 | 0.005954 |
| 74 | rs2925979 | C | -0.03151 | 0.002528 | -0.01205 | 0.011783 | 0.0057 | 0.006227 |
| 75 | rs2943645 | T | 0.040295 | 0.002424 | 0.034922 | 0.010952 | 0.0047 | 0.005955 |
| 76 | rs2954017 | C | -0.08935 | 0.002321 | -0.04722 | 0.010186 | -2.00E-04 | 0.005318 |
| 77 | rs296884 | T | -0.02353 | 0.002666 | -0.01298 | 0.011369 | -0.019 | 0.006466 |
| 78 | rs2971669 | T | 0.016266 | 0.002813 | 0.008124 | 0.012636 | 0.0047 | 0.00767 |
| 79 | rs34682685 | A | 0.033067 | 0.003795 | 0.024773 | 0.020342 | 0.0068 | 0.009628 |
| 80 | rs35225200 | C | 0.031323 | 0.004333 | 0.000105 | 0.022909 | 0.023 | 0.013138 |
| 81 | rs3731696 | G | 0.020535 | 0.003546 | -0.02183 | 0.014759 | 0.039 | 0.008945 |
| 82 | rs38205 | C | -0.01486 | 0.002411 | -0.01649 | 0.010566 | 0.0092 | 0.006076 |
| 83 | rs3822072 | A | 0.016627 | 0.002331 | 0.02104 | 0.01047 | -0.0072 | 0.00587 |
| 84 | rs4410790 | C | 0.016122 | 0.00241 | 0.027445 | 0.010773 | -0.0013 | 0.006055 |
| 85 | rs45487899 | T | -0.03648 | 0.005453 | -0.06403 | 0.027764 | 0.0056 | 0.01506 |
| 86 | rs4646246 | G | 0.030376 | 0.002987 | 0.044027 | 0.013483 | -0.0037 | 0.007681 |
| 87 | rs4675812 | A | -0.01314 | 0.002355 | 0.019916 | 0.010273 | 6.00E-04 | 0.005308 |
| 88 | rs4710938 | G | -0.0144 | 0.002328 | -0.00091 | 0.01034 | 0.01 | 0.005499 |
| 89 | rs4722551 | C | -0.03714 | 0.00318 | 0.005813 | 0.015045 | -0.012 | 0.007925 |
| 90 | rs4731701 | T | -0.03368 | 0.002324 | -0.01366 | 0.010515 | -0.003 | 0.005721 |
| 91 | rs4760254 | C | -0.02841 | 0.002705 | 0.002159 | 0.013582 | -0.0031 | 0.006628 |
| 92 | rs4761234 | C | -0.01633 | 0.002328 | -0.01603 | 0.010397 | 8.00E-04 | 0.005784 |
| 93 | rs4789182 | A | 0.015239 | 0.002622 | -0.01802 | 0.01146 | -0.0039 | 0.006364 |
| 94 | rs4841580 | C | -0.02396 | 0.002347 | 0.006038 | 0.011849 | 0.0075 | 0.006248 |
| 95 | rs4843754 | G | 0.014204 | 0.002326 | 0.000927 | 0.011676 | -0.0053 | 0.006166 |
| 96 | rs4930352 | T | -0.01377 | 0.002361 | 0.001998 | 0.010561 | -0.0034 | 0.005688 |
| 97 | rs4930724 | C | -0.02658 | 0.002467 | -0.02917 | 0.011325 | 0.0013 | 0.006055 |
| 98 | rs4969179 | G | -0.01847 | 0.002374 | -0.00775 | 0.010613 | -0.0012 | 0.005944 |
| 99 | rs4976033 | G | 0.018832 | 0.002398 | 0.013976 | 0.011365 | 0.0063 | 0.007028 |
| 100 | rs5005705 | A | -0.0205 | 0.003117 | -0.02083 | 0.013931 | 0.034 | 0.007645 |
| 101 | rs5112 | G | 0.068337 | 0.002486 | 0.012207 | 0.015682 | -0.019 | 0.010142 |
| 102 | rs56030759 | C | 0.040682 | 0.00486 | -0.00464 | 0.022632 | -0.018 | 0.011888 |
| 103 | rs57232565 | T | 0.19444 | 0.005073 | 0.049875 | 0.024193 | -0.012 | 0.01182 |
| 104 | rs5755799 | G | 0.013109 | 0.002333 | 0.014633 | 0.010357 | 0.0082 | 0.005836 |
| 105 | rs57994353 | C | 0.014533 | 0.002529 | -0.03012 | 0.01236 | 0.018 | 0.006237 |
| 106 | rs58284370 | A | 0.026881 | 0.003959 | -0.02543 | 0.017354 | 0.035 | 0.013765 |
| 107 | rs58542926 | T | -0.10552 | 0.004391 | -0.04597 | 0.020412 | 0.0034 | 0.01067 |
| 108 | rs591939 | G | 0.020518 | 0.002681 | 0.036376 | 0.012141 | -0.014 | 0.006203 |
| 109 | rs593979 | C | -0.01954 | 0.002496 | -0.02336 | 0.010656 | -0.0057 | 0.005974 |
| 110 | rs6066138 | A | -0.01977 | 0.002577 | -0.00966 | 0.01199 | -0.0051 | 0.006462 |
| 111 | rs6073958 | C | 0.055687 | 0.002908 | -0.02901 | 0.012879 | 0.008 | 0.007405 |
| 112 | rs60856912 | T | 0.025468 | 0.003162 | 0.034769 | 0.013325 | -0.0036 | 0.00726 |
| 113 | rs6093446 | A | 0.014235 | 0.002566 | 0.042337 | 0.011223 | -0.0027 | 0.006546 |
| 114 | rs62112763 | G | 0.020615 | 0.002346 | 0.000347 | 0.010447 | 0.017 | 0.006014 |
| 115 | rs631106 | A | -0.08064 | 0.002427 | -0.00486 | 0.010817 | 0.0044 | 0.00623 |
| 116 | rs6486122 | T | 0.019909 | 0.002508 | 0.025128 | 0.011003 | 0.028 | 0.006282 |
| 117 | rs6492721 | C | -0.01482 | 0.002496 | -0.0112 | 0.010752 | -0.016 | 0.006143 |
| 118 | rs6506033 | T | -0.02948 | 0.004505 | -0.00948 | 0.016939 | -0.0013 | 0.011501 |
| 119 | rs6547692 | A | -0.08511 | 0.00233 | 0.000114 | 0.010438 | 0.017 | 0.005857 |
| 120 | rs6554198 | A | -0.01327 | 0.002358 | -0.01508 | 0.010255 | -0.0082 | 0.005836 |
| 121 | rs6708784 | G | -0.0131 | 0.002324 | 0.013639 | 0.010531 | 0.0082 | 0.005696 |
| 122 | rs676210 | A | -0.07658 | 0.002874 | -0.00689 | 0.011577 | -0.0043 | 0.006847 |
| 123 | rs6792725 | G | -0.01609 | 0.002592 | -0.01394 | 0.011565 | -0.0052 | 0.006448 |
| 124 | rs6882076 | C | 0.036111 | 0.002407 | 0.008908 | 0.010648 | -0.0028 | 0.005987 |
| 125 | rs6916318 | T | 0.02615 | 0.002329 | 0.006035 | 0.01019 | 0.0029 | 0.005685 |
| 126 | rs7117238 | A | -0.01894 | 0.003174 | -0.03563 | 0.01283 | -0.053 | 0.007885 |
| 127 | rs7140110 | C | 0.029279 | 0.002539 | 0.019787 | 0.013647 | -5.00E-04 | 0.006643 |
| 128 | rs71603401 | G | 0.026641 | 0.003424 | 0.031051 | 0.01475 | 0.014 | 0.00876 |
| 129 | rs7167078 | G | -0.01537 | 0.002505 | 0.019181 | 0.011257 | 0.016 | 0.006293 |
| 130 | rs7274718 | A | 0.015787 | 0.002364 | -0.01136 | 0.010382 | -0.003 | 0.005721 |
| 131 | rs729761 | G | 0.017988 | 0.002583 | 0.018271 | 0.012483 | 0.011 | 0.006468 |
| 132 | rs7298844 | G | 0.01571 | 0.002852 | -0.02912 | 0.013199 | -0.0029 | 0.007526 |
| 133 | rs73243877 | G | 0.027698 | 0.003101 | 0.019885 | 0.014781 | 0.0038 | 0.007664 |
| 134 | rs7529073 | C | -0.01299 | 0.002329 | -0.00757 | 0.010184 | -0.0086 | 0.00568 |
| 135 | rs76669111 | T | -0.02411 | 0.003198 | 0.009926 | 0.015002 | 0.0087 | 0.007887 |
| 136 | rs7735249 | G | 0.026359 | 0.003688 | 0.062762 | 0.017423 | -0.022 | 0.012855 |
| 137 | rs7826687 | G | 0.032527 | 0.00257 | 0.000613 | 0.011143 | -0.0044 | 0.006523 |
| 138 | rs7896783 | A | -0.03407 | 0.002324 | 0.010857 | 0.010164 | -0.014 | 0.005506 |
| 139 | rs7952521 | A | -0.02914 | 0.003902 | -0.01733 | 0.018497 | 0.016 | 0.011387 |
| 140 | rs8025505 | T | 0.022162 | 0.002668 | -0.01397 | 0.011814 | 0.0057 | 0.008257 |
| 141 | rs8126001 | T | -0.01806 | 0.002327 | -0.03583 | 0.012048 | 0.0055 | 0.007123 |
| 142 | rs852392 | A | 0.01607 | 0.002811 | 0.010967 | 0.013627 | -0.0072 | 0.007092 |
| 143 | rs863750 | T | 0.029472 | 0.002377 | 0.022875 | 0.01059 | -0.0035 | 0.005711 |
| 144 | rs867939 | A | -0.01551 | 0.00236 | -0.00686 | 0.010357 | -0.0094 | 0.005715 |
| 145 | rs9425589 | A | -0.01359 | 0.002341 | -0.01667 | 0.010385 | 0.0025 | 0.005683 |
| 146 | rs9692598 | G | -0.01368 | 0.002322 | 0.000666 | 0.010793 | -0.0052 | 0.005923 |
| 147 | rs9836434 | T | 0.01498 | 0.00272 | 0.007008 | 0.012694 | -0.0028 | 0.00657 |
| 148 | rs9844972 | C | 0.04177 | 0.004587 | 0.042728 | 0.023228 | 0.005 | 0.011733 |
| 149 | rs998584 | A | 0.03985 | 0.002326 | 0.047772 | 0.011036 | 0.0012 | 0.007332 |

TG: Triglycerides; MI: Myocardial infarction; AAM: Age at menarche; SNPs: Single nucleotide polymorphisms.

a Effect size of each allele on genetically-determined TG (mmol/l per allele)

b Standard error of the genetic association of each effect allele with genetically-determined TG

c Effect size per allele in the log-odds or the log probability of MI after adjusting for genetically predicted AAM

d Standard error of the genetic association of each effect allele with genetically predicted MI after adjusting for genetically predicted AAM

e Effect size per allele in AAM (in years)

f Standard error of the genetic association of each effect allele with genetically predicted AAM

Table S29. Genetic estimates for the association of genetically-determined alcohol intake frequency with genetically predicted MI after adjusting for genetically predicted AAM.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Zka | σZkb | Yk c | σYk d | Xke | σXkf |
| 1 | rs10188314 | T | -0.01979 | 0.003036 | 0.003268 | 0.010284 | -0.0038 | 0.005907 |
| 2 | rs10792669 | G | 0.017432 | 0.003041 | 0.013323 | 0.010399 | 0.0012 | 0.005589 |
| 3 | rs11039429 | T | -0.02356 | 0.003037 | 0.000949 | 0.010414 | -0.0054 | 0.005659 |
| 4 | rs1104608 | C | 0.017421 | 0.003088 | 0.00124 | 0.011252 | 0.0075 | 0.006942 |
| 5 | rs11223617 | A | 0.025091 | 0.003754 | -0.00501 | 0.012093 | -0.01 | 0.006947 |
| 6 | rs11700855 | G | -0.0298 | 0.005233 | 0.004728 | 0.017028 | -0.002 | 0.009906 |
| 7 | rs11750777 | A | -0.02049 | 0.003726 | 0.004334 | 0.01381 | 0.0024 | 0.007856 |
| 8 | rs11787216 | T | 0.024416 | 0.003201 | -0.01385 | 0.011616 | -0.011 | 0.006114 |
| 9 | rs11940694 | G | -0.04371 | 0.003116 | 0.010302 | 0.010436 | -0.0021 | 0.005858 |
| 10 | rs12153855 | C | 0.029444 | 0.004935 | -0.00767 | 0.017252 | -0.0023 | 0.010108 |
| 11 | rs1228589 | A | 0.02107 | 0.003528 | 0.019834 | 0.012453 | 0.015 | 0.006692 |
| 12 | rs12312693 | C | -0.01768 | 0.00305 | 0.021055 | 0.010599 | 0.011 | 0.005939 |
| 13 | rs13102973 | C | -0.01941 | 0.003119 | 0.001013 | 0.01033 | -0.0042 | 0.006528 |
| 14 | rs13178443 | T | -0.01865 | 0.00339 | -0.0066 | 0.01199 | 0.0033 | 0.00647 |
| 15 | rs13390019 | C | 0.029612 | 0.004492 | 0.009628 | 0.018067 | -3.00E-04 | 0.011967 |
| 16 | rs1421085 | C | 0.019939 | 0.003085 | 0.026556 | 0.010737 | 0.041 | 0.006057 |
| 17 | rs1666658 | C | 0.017967 | 0.003099 | 0.024276 | 0.011623 | 0.0068 | 0.006037 |
| 18 | rs17690703 | T | 0.025034 | 0.00343 | 0.041524 | 0.015104 | -0.0048 | 0.006796 |
| 19 | rs186347 | T | 0.017949 | 0.003051 | -0.00343 | 0.010934 | -0.0022 | 0.005916 |
| 20 | rs1893659 | A | -0.02933 | 0.003053 | -0.01191 | 0.010389 | -0.0093 | 0.005637 |
| 21 | rs1937522 | G | 0.016898 | 0.003032 | 0.011899 | 0.010349 | 5.00E-04 | 0.006643 |
| 22 | rs1991083 | T | -0.02239 | 0.003258 | -0.03144 | 0.011705 | 0.022 | 0.006527 |
| 23 | rs2043677 | T | 0.026113 | 0.004327 | 0.006193 | 0.014304 | 0.0024 | 0.007856 |
| 24 | rs2159935 | A | -0.01857 | 0.003026 | -0.02236 | 0.010156 | -0.0061 | 0.005646 |
| 25 | rs2160935 | T | -0.01872 | 0.003091 | -0.0148 | 0.010584 | -0.0087 | 0.005895 |
| 26 | rs2411453 | G | -0.03508 | 0.00309 | -0.01763 | 0.012324 | -0.0029 | 0.005849 |
| 27 | rs2535911 | T | -0.01885 | 0.003168 | -0.00348 | 0.011333 | -0.013 | 0.00584 |
| 28 | rs2622167 | A | -0.01912 | 0.003067 | 0.017052 | 0.01334 | 0.0095 | 0.006923 |
| 29 | rs262240 | T | -0.01721 | 0.003035 | 0.004332 | 0.010455 | 0.01 | 0.005693 |
| 30 | rs2717063 | A | -0.02037 | 0.003085 | 0.005304 | 0.010379 | -0.014 | 0.005918 |
| 31 | rs28622224 | T | -0.01862 | 0.003368 | -0.0159 | 0.011567 | -0.0012 | 0.007949 |
| 32 | rs28787109 | A | 0.017811 | 0.003085 | -0.00787 | 0.010546 | 0.0011 | 0.005816 |
| 33 | rs2924321 | A | -0.01951 | 0.00305 | -0.00343 | 0.010505 | -0.014 | 0.005918 |
| 34 | rs34440851 | T | -0.02268 | 0.004151 | 0.024004 | 0.013686 | -5.00E-04 | 0.007974 |
| 35 | rs34631026 | T | -0.01691 | 0.003048 | -0.00286 | 0.010726 | -0.016 | 0.00589 |
| 36 | rs35105141 | T | 0.026345 | 0.003088 | -0.0095 | 0.010609 | 0.019 | 0.00569 |
| 37 | rs4241258 | T | 0.025064 | 0.004403 | 0.014614 | 0.015727 | -0.014 | 0.00876 |
| 38 | rs4242715 | A | -0.01865 | 0.003248 | 0.002657 | 0.011466 | 2.00E-04 | 0.007978 |
| 39 | rs4417025 | A | -0.01884 | 0.003165 | -0.01488 | 0.012436 | 0.0045 | 0.006995 |
| 40 | rs461599 | C | -0.01919 | 0.00304 | -0.01571 | 0.010341 | -0.0051 | 0.005689 |
| 41 | rs4726481 | T | 0.021761 | 0.003102 | 0.014595 | 0.011769 | -0.0037 | 0.006038 |
| 42 | rs473098 | T | -0.02174 | 0.003043 | -0.00088 | 0.011353 | -0.0045 | 0.005702 |
| 43 | rs489062 | A | 0.01665 | 0.003053 | 0.025068 | 0.010519 | 0.0076 | 0.005799 |
| 44 | rs4916723 | C | 0.023948 | 0.0031 | -0.00105 | 0.010684 | 0.0099 | 0.005803 |
| 45 | rs4940926 | C | -0.0191 | 0.003441 | -0.04481 | 0.011597 | -0.0084 | 0.006701 |
| 46 | rs5022348 | T | 0.020264 | 0.00357 | 0.009518 | 0.010396 | 0.0045 | 0.005702 |
| 47 | rs550942 | T | 0.022401 | 0.003989 | 0.01433 | 0.015068 | 0.019 | 0.008101 |
| 48 | rs58905411 | A | -0.02663 | 0.003078 | -0.01717 | 0.010709 | -0.007 | 0.005832 |
| 49 | rs6030200 | A | -0.01953 | 0.003271 | -0.01285 | 0.011116 | -0.0073 | 0.006213 |
| 50 | rs62097995 | A | 0.020002 | 0.003067 | 0.00775 | 0.01098 | -0.0046 | 0.005704 |
| 51 | rs650558 | T | 0.020736 | 0.003508 | 0.036907 | 0.012125 | -0.017 | 0.007585 |
| 52 | rs6727281 | T | -0.02432 | 0.00392 | -0.00971 | 0.014591 | -0.016 | 0.007328 |
| 53 | rs71651683 | T | -0.07046 | 0.012791 | 0.040066 | 0.046175 | 0.0015 | 0.023921 |
| 54 | rs72769229 | T | -0.02314 | 0.004192 | -0.01338 | 0.015303 | -0.001 | 0.007958 |
| 55 | rs728538 | G | 0.022875 | 0.004063 | 0.036543 | 0.014908 | 0.0056 | 0.007413 |
| 56 | rs7302200 | A | -0.01842 | 0.003198 | -0.00659 | 0.012174 | 0.017 | 0.006042 |
| 57 | rs73050128 | A | -0.026 | 0.004091 | -0.02821 | 0.012936 | -0.007 | 0.007336 |
| 58 | rs7330939 | T | -0.02133 | 0.003405 | -0.01382 | 0.011489 | -0.014 | 0.006604 |
| 59 | rs7610856 | A | -0.02386 | 0.00307 | -0.01066 | 0.011061 | -0.0055 | 0.005764 |
| 60 | rs780094 | C | -0.05099 | 0.003105 | 0.003123 | 0.010684 | 0.017 | 0.005857 |
| 61 | rs780569 | A | 0.019803 | 0.003365 | 0.014066 | 0.011415 | 0.0063 | 0.006335 |
| 62 | rs838145 | A | 0.021955 | 0.003055 | 0.000915 | 0.011417 | 0.013 | 0.006027 |
| 63 | rs8614 | A | 0.024781 | 0.003925 | 0.018184 | 0.012998 | -0.015 | 0.00762 |
| 64 | rs9349379 | G | -0.01935 | 0.003082 | 0.130965 | 0.01065 | -0.0095 | 0.006599 |
| 65 | rs9372625 | A | -0.02556 | 0.003125 | -0.00808 | 0.010989 | 0.0043 | 0.005952 |
| 66 | rs9403297 | A | 0.018823 | 0.00313 | 0.007726 | 0.010939 | 0.023 | 0.006141 |
| 67 | rs9648478 | A | 0.01686 | 0.003029 | 0.001866 | 0.010147 | 0.0041 | 0.005549 |
| 68 | rs9814516 | T | -0.02511 | 0.003556 | -0.00168 | 0.011646 | -0.017 | 0.006686 |
| 69 | rs9829192 | T | 0.016932 | 0.00305 | 0.003832 | 0.010321 | -0.0027 | 0.00595 |
| 70 | rs9958320 | C | 0.024855 | 0.004271 | -0.01883 | 0.014217 | -0.012 | 0.009997 |

MI: Myocardial infarction; AAM: Age at menarche; SNPs: Single nucleotide polymorphisms.

a Effect size of each allele on genetically-determined alcohol intake frequency (times per week/ allele)

b Standard error of the genetic association of each effect allele with genetically-determined alcohol intake frequency

c Effect size per allele in the log-odds or the log probability of MI after adjusting for genetically predicted AAM

d Standard error of the genetic association of each effect allele with genetically predicted MI after adjusting for genetically predicted AAM

e Effect size per allele in AAM (in years)

f Standard error of the genetic association of each effect allele with genetically predicted AAM

Table S30. Genetic estimates for the association of genetically-determined sleep duration with genetically predicted MI after adjusting for genetically predicted AAM.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Zka | σZkb | Yk c | σYk d | Xke | σXkf |
| 1 | rs10510128 | A | 0.011403 | 0.001974 | -0.00524 | 0.013645 | 0.0046 | 0.00715 |
| 2 | rs113021516 | C | 0.011481 | 0.001697 | 0.033967 | 0.011038 | -0.01 | 0.005825 |
| 3 | rs113113059 | C | -0.01113 | 0.001933 | 0.017486 | 0.012096 | 0.017 | 0.007057 |
| 4 | rs11621908 | T | -0.01999 | 0.002943 | -0.02854 | 0.019506 | -0.018 | 0.01065 |
| 5 | rs11650677 | A | 0.01117 | 0.00169 | -0.01451 | 0.010945 | -0.0095 | 0.005944 |
| 6 | rs11982852 | T | -0.01173 | 0.001862 | 0.011026 | 0.012267 | 0.02 | 0.006739 |
| 7 | rs12518468 | C | -0.01064 | 0.001703 | 0.005875 | 0.011222 | 0.014 | 0.006203 |
| 8 | rs12567114 | A | 0.012338 | 0.001794 | 0.014131 | 0.011675 | -0.0081 | 0.00632 |
| 9 | rs13107325 | T | -0.02427 | 0.003039 | -0.00152 | 0.024398 | 0.023 | 0.013138 |
| 10 | rs1348047 | T | -0.01264 | 0.00182 | 0.014916 | 0.011858 | 0.011 | 0.006883 |
| 11 | rs1463053 | A | 0.00927 | 0.001661 | 0.011519 | 0.010594 | -0.019 | 0.005908 |
| 12 | rs1517572 | C | 0.011659 | 0.001622 | 0.010476 | 0.010609 | -0.0092 | 0.005917 |
| 13 | rs1553132 | G | 0.010526 | 0.001825 | 0.025485 | 0.012102 | 2.00E-04 | 0.005318 |
| 14 | rs1611719 | A | -0.01321 | 0.002027 | -0.00998 | 0.01706 | 0.02 | 0.019297 |
| 15 | rs17391944 | G | 0.021852 | 0.003724 | 0.049681 | 0.025341 | 0.014 | 0.013508 |
| 16 | rs174564 | G | 0.009745 | 0.001678 | -0.02368 | 0.011343 | 0.0021 | 0.006591 |
| 17 | rs17732997 | G | -0.00884 | 0.001618 | 0.013097 | 0.010382 | -0.0073 | 0.005696 |
| 18 | rs1972712 | C | 0.011796 | 0.001848 | -0.00262 | 0.011972 | -0.0013 | 0.006874 |
| 19 | rs2079070 | G | -0.01344 | 0.001811 | 0.01181 | 0.012717 | 0.011 | 0.006668 |
| 20 | rs2186122 | T | -0.01083 | 0.001621 | 0.015033 | 0.010285 | 0.01 | 0.005655 |
| 21 | rs2192528 | G | -0.00981 | 0.001601 | -0.00237 | 0.010383 | -0.004 | 0.005663 |
| 22 | rs2279681 | G | 0.009299 | 0.001685 | -0.01558 | 0.010865 | -0.0058 | 0.007192 |
| 23 | rs2683630 | G | 0.014951 | 0.001656 | 0.002142 | 0.010428 | -0.014 | 0.005969 |
| 24 | rs2734831 | G | -0.0098 | 0.001639 | -0.01839 | 0.010569 | -0.0071 | 0.005789 |
| 25 | rs2748809 | C | -0.00925 | 0.001645 | -0.02721 | 0.011564 | -0.0096 | 0.006669 |
| 26 | rs2839753 | C | -0.01064 | 0.001812 | 0.011885 | 0.011672 | -0.011 | 0.007075 |
| 27 | rs2863957 | A | 0.028904 | 0.001929 | 0.004794 | 0.012032 | -0.0029 | 0.007031 |
| 28 | rs34354917 | A | -0.01002 | 0.001768 | 0.031316 | 0.013561 | -0.016 | 0.007138 |
| 29 | rs34786000 | T | 0.010958 | 0.001628 | -0.00691 | 0.011109 | -0.038 | 0.005737 |
| 30 | rs35662245 | A | 0.010157 | 0.001691 | -0.00372 | 0.01076 | -0.0058 | 0.005954 |
| 31 | rs365663 | G | -0.00928 | 0.00161 | 0.002434 | 0.010422 | -0.0035 | 0.006005 |
| 32 | rs374153 | T | -0.0131 | 0.002197 | 0.008428 | 0.01526 | 0.0048 | 0.00803 |
| 33 | rs4767550 | G | 0.010873 | 0.001633 | -0.0215 | 0.010692 | -0.0089 | 0.005878 |
| 34 | rs55658675 | T | -0.00969 | 0.001675 | 0.009931 | 0.011278 | -0.0049 | 0.006076 |
| 35 | rs56367859 | G | 0.011622 | 0.001636 | -0.00886 | 0.011296 | -0.0072 | 0.005744 |
| 36 | rs62444917 | C | 0.012963 | 0.001926 | -0.02676 | 0.011822 | 0.011 | 0.008016 |
| 37 | rs6783516 | T | -0.00984 | 0.001631 | 0.002242 | 0.01034 | -0.0068 | 0.005665 |
| 38 | rs6889592 | A | 0.011766 | 0.001697 | -0.01283 | 0.01136 | -0.011 | 0.006049 |
| 39 | rs7016314 | C | 0.010001 | 0.001688 | -0.00521 | 0.011777 | 7.00E-04 | 0.006193 |
| 40 | rs7115856 | C | 0.010819 | 0.001603 | -0.01153 | 0.010444 | -0.012 | 0.006014 |
| 41 | rs72771082 | G | 0.010974 | 0.001936 | -0.00135 | 0.012236 | 0.027 | 0.006687 |
| 42 | rs7517981 | C | -0.00997 | 0.001634 | -0.00121 | 0.010948 | 0.017 | 0.005923 |
| 43 | rs7644809 | C | -0.01015 | 0.001625 | 0.003904 | 0.010729 | 0.0022 | 0.005916 |
| 44 | rs7711696 | T | -0.00987 | 0.001735 | 0.017925 | 0.011299 | -0.0075 | 0.006383 |
| 45 | rs7740402 | G | -0.00951 | 0.001735 | -0.00579 | 0.010715 | -3.00E-04 | 0.005982 |
| 46 | rs7831557 | A | -0.01057 | 0.001601 | 0.004658 | 0.011079 | -0.0098 | 0.006132 |
| 47 | rs8038326 | G | -0.01338 | 0.001793 | 0.009168 | 0.01203 | 0.007 | 0.006346 |
| 48 | rs8047587 | T | -0.01102 | 0.001613 | 0.017929 | 0.0105 | 0.042 | 0.005799 |
| 49 | rs8074498 | A | -0.00933 | 0.001634 | -0.01236 | 0.012737 | 0.0059 | 0.006581 |
| 50 | rs915416 | G | -0.01273 | 0.00176 | -0.00862 | 0.010967 | 0.0076 | 0.006196 |
| 51 | rs9302680 | A | 0.012044 | 0.001611 | -0.00232 | 0.010218 | -0.011 | 0.005588 |
| 52 | rs9345234 | C | 0.009192 | 0.001624 | 0.005039 | 0.010214 | -0.0064 | 0.005802 |
| 53 | rs9382445 | C | -0.00948 | 0.001649 | 0.010108 | 0.010622 | 0.029 | 0.005914 |
| 54 | rs9611007 | T | -0.01359 | 0.002297 | -0.00804 | 0.015008 | 0.026 | 0.010793 |
| 55 | rs9810474 | T | -0.01115 | 0.001894 | 0.020453 | 0.011846 | 0.028 | 0.006797 |
| 56 | rs9903898 | T | -0.00945 | 0.001601 | 0.004277 | 0.010835 | -0.012 | 0.005872 |

MI: Myocardial infarction; AAM: Age at menarche; SNPs: Single nucleotide polymorphisms.

a Effect size of each allele on genetically-determined sleep duration (hours per allele)

b Standard error of the genetic association of each effect allele with genetically-determined sleep duration

c Effect size per allele in the log-odds or the log probability of MI after adjusting for genetically predicted AAM

d Standard error of the genetic association of each effect allele with genetically predicted MI after adjusting for genetically predicted AAM

e Effect size per allele in AAM (in years)

f Standard error of the genetic association of each effect allele with genetically predicted AAM

Table S31. Genetic estimates for the association of genetically-determined WHR with genetically predicted MI after adjusting for genetically predicted AAM.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Zka | σZkb | Yk c | σYk d | Xke | σXkf |
| 1 | rs10195252 | C | -0.044 | 0.0044 | -0.01132 | 0.010766 | -0.0035 | 0.005855 |
| 2 | rs1045241 | T | -0.027 | 0.0049 | -0.02081 | 0.011704 | -0.0078 | 0.006638 |
| 3 | rs10804591 | A | 0.035 | 0.0054 | 0.016073 | 0.011969 | 0.013 | 0.007019 |
| 4 | rs11048470 | T | 0.033 | 0.0049 | -0.00787 | 0.01175 | -0.0071 | 0.006437 |
| 5 | rs11075985 | A | 0.039 | 0.0045 | 0.021167 | 0.01041 | 0.041 | 0.005927 |
| 6 | rs11989744 | T | -0.035 | 0.0061 | 0.023125 | 0.011953 | -0.0058 | 0.006891 |
| 7 | rs12679556 | G | 0.03 | 0.0052 | 0.015351 | 0.011247 | -0.0063 | 0.006603 |
| 8 | rs1294421 | G | 0.033 | 0.0046 | -0.0218 | 0.010584 | -2.00E-04 | 0.005318 |
| 9 | rs1358980 | T | 0.049 | 0.0048 | 0.039235 | 0.010749 | 0.0028 | 0.00657 |
| 10 | rs1394461 | C | 0.035 | 0.0063 | -0.01281 | 0.012121 | -0.0071 | 0.006994 |
| 11 | rs1443512 | C | -0.037 | 0.0051 | -0.00387 | 0.011656 | -9.00E-04 | 0.007162 |
| 12 | rs17819328 | G | 0.032 | 0.0046 | 0.042399 | 0.010594 | 0.0014 | 0.006153 |
| 13 | rs1936805 | T | 0.044 | 0.0044 | 0.004434 | 0.010234 | 0.002 | 0.005795 |
| 14 | rs2179129 | G | -0.026 | 0.0045 | -0.014 | 0.010352 | -0.0091 | 0.005853 |
| 15 | rs2765539 | T | 0.031 | 0.005 | -0.00924 | 0.011289 | 0.005 | 0.006475 |
| 16 | rs3902751 | A | 0.032 | 0.0051 | 0.002669 | 0.011379 | 0.0088 | 0.006715 |
| 17 | rs4471313 | T | 0.03 | 0.0052 | 0.005467 | 0.011357 | 0.0063 | 0.006335 |
| 18 | rs4646404 | A | -0.03 | 0.0051 | -0.0036 | 0.012258 | 0.0091 | 0.006787 |
| 19 | rs4846565 | A | -0.048 | 0.0046 | -0.00013 | 0.011062 | -0.0077 | 0.006008 |
| 20 | rs489693 | A | 0.029 | 0.0047 | 0.040496 | 0.01092 | -0.0065 | 0.006143 |
| 21 | rs863750 | T | 0.027 | 0.0045 | 0.022875 | 0.01059 | -0.0035 | 0.005711 |
| 22 | rs9687846 | A | 0.034 | 0.0057 | 0.028097 | 0.013418 | 0.0082 | 0.00759 |
| 23 | rs9860730 | G | -0.042 | 0.0048 | 0.000509 | 0.011159 | -0.0073 | 0.006346 |

WHR: Waist-hip-ratio; MI: Myocardial infarction; AAM: Age at menarche; SNPs: Single nucleotide polymorphisms.

a Effect size of each allele on genetically-determined WHR (percentage point/ allele)

b Standard error of the genetic association of each effect allele with genetically-determined WHR

c Effect size per allele in the log-odds or the log probability of MI after adjusting for genetically predicted AAM

d Standard error of the genetic association of each effect allele with genetically predicted MI after adjusting for genetically predicted AAM

e Effect size per allele in AAM (in years)

f Standard error of the genetic association of each effect allele with genetically predicted AAM

Table S32. Genetic estimates for the association of genetically-determined FBG with genetically predicted MI after adjusting for genetically predicted AAM.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Zka | σZkb | Yk c | σYk d | Xke | σXkf |
| 1 | rs10276674 | C | 0.036 | 0.0051 | 0.007199 | 0.012756 | -0.013 | 0.007903 |
| 2 | rs10787312 | A | 0.042 | 0.0062 | 0.010518 | 0.015461 | 0.0061 | 0.009954 |
| 3 | rs10830963 | G | 0.079 | 0.0045 | 0.022073 | 0.011736 | 0.012 | 0.007252 |
| 4 | rs11558471 | G | -0.027 | 0.004 | -0.00417 | 0.011393 | -0.0068 | 0.006294 |
| 5 | rs11717195 | C | -0.029 | 0.0047 | -0.01019 | 0.012765 | -0.006 | 0.006835 |
| 6 | rs12805422 | A | -0.023 | 0.0037 | 0.00419 | 0.010498 | 9.00E-04 | 0.005499 |
| 7 | rs17390909 | G | -0.037 | 0.0067 | -0.01799 | 0.01733 | -0.016 | 0.010291 |
| 8 | rs2191349 | T | 0.03 | 0.0036 | 0.007486 | 0.0103 | -0.0029 | 0.005685 |
| 9 | rs2524299 | T | -0.03 | 0.0052 | -0.02819 | 0.01585 | -0.005 | 0.008579 |
| 10 | rs4506565 | T | 0.023 | 0.004 | 0.02087 | 0.011236 | -0.01 | 0.006432 |
| 11 | rs560887 | C | 0.075 | 0.0041 | -0.0051 | 0.012225 | -0.014 | 0.006246 |
| 12 | rs6975024 | C | 0.062 | 0.0049 | 0.00916 | 0.013856 | 0.0028 | 0.007811 |
| 13 | rs780093 | C | 0.027 | 0.0037 | 0.002801 | 0.010608 | 0.017 | 0.005938 |
| 14 | rs7944584 | T | -0.025 | 0.0041 | 0.015569 | 0.012314 | -0.0074 | 0.00657 |

FBG: Fasting blood glucose; MI: Myocardial infarction; AAM: Age at menarche; SNPs: Single nucleotide polymorphisms.

a Effect size of each allele on genetically-determined FBG (mmol/l per allele)

b Standard error of the genetic association of each effect allele with genetically-determined FBG

c Effect size per allele in the log-odds or the log probability of MI after adjusting for genetically predicted AAM

d Standard error of the genetic association of each effect allele with genetically predicted MI after adjusting for genetically predicted AAM

e Effect size per allele in AAM (in years)

f Standard error of the genetic association of each effect allele with genetically predicted AAM

Table S33. Genetic estimates for the association of genetically-determined HDL with genetically predicted MI after adjusting for genetically predicted AAM.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | Zka | σZkb | Yk c | σYk d | Xke | σXkf |
| 1 | rs11632618 | A | 0.215139 | 0.023086 | 0.038836 | 0.02434 | -0.0014 | 0.01394 |
| 2 | rs174583 | T | -0.07783 | 0.010132 | -0.02396 | 0.01139 | 0.0019 | 0.00622 |
| 3 | rs1883025 | T | -0.07216 | 0.012455 | -0.02581 | 0.011584 | -0.012 | 0.0069 |
| 4 | rs247617 | A | 0.209633 | 0.01079 | -0.02614 | 0.011415 | 0.0024 | 0.006229 |
| 5 | rs261291 | C | 0.179384 | 0.010165 | 0.005162 | 0.010716 | 0.0039 | 0.00592 |
| 6 | rs291 | C | 0.10065 | 0.011676 | -0.03487 | 0.012907 | 0.0012 | 0.006804 |
| 7 | rs60439253 | T | 0.235306 | 0.028232 | 0.017901 | 0.030954 | -0.016 | 0.017848 |
| 8 | rs6065904 | A | -0.13534 | 0.011671 | -0.02312 | 0.01205 | 0.011 | 0.007075 |
| 9 | rs6507939 | C | 0.094757 | 0.013468 | -0.01747 | 0.015114 | 0.0049 | 0.008197 |
| 10 | rs6544366 | T | 0.064093 | 0.011001 | -0.01162 | 0.01142 | -4.00E-04 | 0.007976 |
| 11 | rs67053123 | A | 0.092051 | 0.014556 | 0.02784 | 0.015985 | 0.012 | 0.009573 |
| 12 | rs964184 | C | 0.081863 | 0.014048 | -0.04877 | 0.013873 | 0.0095 | 0.008794 |

HDL: High-density lipoprotein; MI: Myocardial infarction; AAM: Age at menarche; SNPs: Single nucleotide polymorphisms.

a Effect size of each allele on genetically-determined HDL (mmol/l per allele)

b Standard error of the genetic association of each effect allele with genetically-determined HDL

c Effect size per allele in the log-odds or the log probability of MI after adjusting for genetically predicted AAM

d Standard error of the genetic association of each effect allele with genetically predicted MI after adjusting for genetically predicted AAM

e Effect size per allele in AAM (in years)

f Standard error of the genetic association of each effect allele with genetically predicted AAM

Table S34. Genetic estimates for the association of genetically-determined age that started HRT with genetically predicted MI after adjusting for genetically predicted AAM.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SNPs | Effect allele | | Zka | σZkb | Yk c | σYk d | Xke | σXkf |
| 1 | rs11668344 | G | -0.05402 | | 0.004908 | 0.017417 | 0.010759 | 0.0071 | 0.005915 |
| 2 | rs12503643 | T | 0.028498 | | 0.004856 | 0.010543 | 0.010424 | 0.004 | 0.00593 |
| 3 | rs16991615 | A | 0.105051 | | 0.009857 | -0.02119 | 0.023848 | 0.0053 | 0.013288 |
| 4 | rs177404 | C | -0.02959 | | 0.005308 | 0.00685 | 0.012926 | 0.018 | 0.007609 |
| 5 | rs2013097 | C | -0.02684 | | 0.004801 | -0.00082 | 0.010506 | -0.0036 | 0.006865 |
| 6 | rs251848 | A | 0.031416 | | 0.004847 | 0.012346 | 0.010705 | 0.0075 | 0.006383 |
| 7 | rs274721 | T | -0.02823 | | 0.004877 | 0.019009 | 0.010359 | 0.011 | 0.005983 |
| 8 | rs3743590 | A | -0.03746 | | 0.004893 | -0.01015 | 0.01062 | 3.00E-04 | 0.005982 |
| 9 | rs3765637 | T | -0.03465 | | 0.005628 | 0.009092 | 0.011791 | -0.0078 | 0.006781 |
| 10 | rs4235062 | A | 0.033026 | | 0.004755 | 0.014673 | 0.010449 | -0.017 | 0.005688 |
| 11 | rs4532801 | G | -0.03639 | | 0.005081 | 0.000455 | 0.010576 | 0.0071 | 0.006172 |
| 12 | rs6496571 | C | -0.02835 | | 0.004878 | 0.000483 | 0.010578 | 0.0028 | 0.005812 |
| 13 | rs6760293 | T | 0.028591 | | 0.004889 | 0.007413 | 0.010951 | 0.0082 | 0.005976 |
| 14 | rs6760857 | A | -0.04644 | | 0.007732 | 0.014559 | 0.018579 | -0.022 | 0.009218 |
| 15 | rs6980805 | C | 0.028853 | | 0.004865 | -0.0081 | 0.010862 | -0.0018 | 0.005892 |
| 16 | rs732084 | C | 0.030272 | | 0.005055 | -0.01931 | 0.010905 | -3.00E-04 | 0.005982 |
| 17 | rs75779608 | T | -0.03283 | | 0.005893 | -0.01191 | 0.013632 | 0.018 | 0.006871 |
| 18 | rs7994166 | T | 0.028464 | | 0.004768 | -0.00872 | 0.01046 | -0.0036 | 0.006505 |
| 19 | rs9348724 | G | -0.03823 | | 0.00636 | 0.026852 | 0.0132 | -0.015 | 0.007881 |

HRT: hormone-replacement therapy; MI: Myocardial infarction; AAM: Age at menarche; SNPs: Single nucleotide polymorphisms.

a Effect size of each allele on genetically-determined age that started HRT (years/allele)

b Standard error of the genetic association of each effect allele with genetically-determined age that started HRT

c Effect size per allele in the log-odds or the log probability of MI after adjusting for genetically predicted AAM

d Standard error of the genetic association of each effect allele with genetically predicted MI after adjusting for genetically predicted AAM

e Effect size per allele in AAM (in years)

f Standard error of the genetic association of each effect allele with genetically predicted AAM

Table S35. Single SNP analysis for estimate of the association of genetically predicted AAM with genetically predicted MI.

|  |  |  |  |
| --- | --- | --- | --- |
| SNPs | Beta | SE | *p*-value |
| rs10144321 | -0.206 | 0.288 | 0.473 |
| rs10483727 | -0.563 | 0.286 | 0.050 |
| rs1079866 | 0.140 | 0.204 | 0.492 |
| rs10840031 | -0.219 | 0.290 | 0.452 |
| rs10938397 | -0.591 | 0.272 | 0.030 |
| rs11022756 | -0.711 | 0.236 | 0.003 |
| rs11715566 | -0.217 | 0.196 | 0.270 |
| rs11756454 | -0.333 | 0.299 | 0.267 |
| rs11767400 | -0.218 | 0.353 | 0.536 |
| rs12003641 | -0.199 | 0.209 | 0.339 |
| rs12148769 | 0.234 | 0.302 | 0.439 |
| rs12291726 | -0.628 | 0.227 | 0.006 |
| rs12598642 | -0.499 | 0.242 | 0.040 |
| rs12915845 | -0.105 | 0.303 | 0.730 |
| rs13179411 | 0.122 | 0.256 | 0.635 |
| rs13215865 | 0.140 | 0.343 | 0.683 |
| rs1398217 | -0.059 | 0.224 | 0.792 |
| rs1482853 | -0.411 | 0.281 | 0.144 |
| rs1516883 | -0.037 | 0.123 | 0.760 |
| rs1518080 | -0.210 | 0.208 | 0.311 |
| rs1659127 | -0.097 | 0.258 | 0.706 |
| rs16938437 | -0.348 | 0.268 | 0.194 |
| rs17351680 | -0.737 | 0.325 | 0.023 |
| rs1874984 | 0.170 | 0.287 | 0.554 |
| rs2153127 | -0.209 | 0.136 | 0.126 |
| rs2179786 | -0.199 | 0.265 | 0.452 |
| rs2184968 | 0.942 | 0.296 | 0.001 |
| rs2303100 | -0.126 | 0.275 | 0.649 |
| rs2344508 | 0.123 | 0.305 | 0.687 |
| rs2617056 | -0.139 | 0.317 | 0.662 |
| rs2687729 | 0.354 | 0.260 | 0.173 |
| rs2836950 | 0.297 | 0.306 | 0.331 |
| rs2947411 | -0.160 | 0.256 | 0.531 |
| rs3733632 | -0.194 | 0.258 | 0.451 |
| rs3743266 | -0.319 | 0.256 | 0.213 |
| rs3870341 | 0.299 | 0.296 | 0.311 |
| rs3914188 | -0.017 | 0.266 | 0.950 |
| rs4242496 | -0.498 | 0.339 | 0.142 |
| rs4369815 | -0.418 | 0.286 | 0.144 |
| rs466639 | 0.023 | 0.195 | 0.904 |
| rs4801589 | 0.152 | 0.321 | 0.635 |
| rs4840086 | -0.369 | 0.287 | 0.200 |
| rs618678 | 0.167 | 0.333 | 0.616 |
| rs633715 | -0.564 | 0.254 | 0.026 |
| rs6694738 | 0.155 | 0.316 | 0.624 |
| rs6747380 | 0.448 | 0.204 | 0.028 |
| rs6758290 | -0.029 | 0.263 | 0.912 |
| rs6770162 | 0.110 | 0.297 | 0.711 |
| rs6933660 | 0.131 | 0.301 | 0.664 |
| rs7103411 | -0.632 | 0.281 | 0.025 |
| rs7119712 | -0.310 | 0.308 | 0.315 |
| rs740077 | 0.092 | 0.258 | 0.721 |
| rs7642134 | 0.227 | 0.275 | 0.409 |
| rs7821178 | 0.256 | 0.235 | 0.277 |
| rs7853970 | -0.550 | 0.288 | 0.056 |
| rs7944630 | 0.250 | 0.223 | 0.262 |
| rs852069 | -0.171 | 0.295 | 0.562 |
| rs888345 | 0.263 | 0.291 | 0.367 |
| rs895526 | -0.202 | 0.306 | 0.509 |
| rs913588 | -0.408 | 0.305 | 0.182 |
| rs9373571 | 0.244 | 0.313 | 0.436 |
| rs9555810 | -0.039 | 0.245 | 0.873 |
| rs9565073 | 0.262 | 0.312 | 0.402 |
| rs9635759 | -0.238 | 0.210 | 0.258 |
| rs9647570 | 0.376 | 0.301 | 0.211 |
| rs9939609 | -0.572 | 0.255 | 0.025 |
| rs9997604 | 0.589 | 0.303 | 0.052 |

AAM: Age at menarche; MI: Myocardial infarction; SNPs: Single nucleotide polymorphisms.SE: Standard deviation.

Table S36. Leave-one-out analysis for estimate of the association of genetically predicted AAM with genetically predicted MI.

|  |  |  |  |
| --- | --- | --- | --- |
| SNPs | Beta | SE | *p*-value |
| rs10144321 | -0.098 | 0.039 | 0.012 |
| rs10483727 | -0.094 | 0.039 | 0.016 |
| rs1079866 | -0.105 | 0.039 | 0.007 |
| rs10840031 | -0.098 | 0.039 | 0.013 |
| rs10938397 | -0.093 | 0.039 | 0.016 |
| rs11022756 | -0.089 | 0.038 | 0.020 |
| rs11715566 | -0.096 | 0.039 | 0.015 |
| rs11756454 | -0.097 | 0.039 | 0.013 |
| rs11767400 | -0.098 | 0.039 | 0.012 |
| rs12003641 | -0.097 | 0.039 | 0.014 |
| rs12148769 | -0.103 | 0.039 | 0.008 |
| rs12291726 | -0.089 | 0.038 | 0.020 |
| rs12598642 | -0.093 | 0.039 | 0.017 |
| rs12915845 | -0.099 | 0.039 | 0.011 |
| rs13179411 | -0.103 | 0.039 | 0.009 |
| rs13215865 | -0.101 | 0.039 | 0.010 |
| rs1398217 | -0.100 | 0.039 | 0.011 |
| rs1482853 | -0.096 | 0.039 | 0.014 |
| rs1516883 | -0.104 | 0.040 | 0.010 |
| rs1518080 | -0.097 | 0.039 | 0.014 |
| rs1659127 | -0.099 | 0.039 | 0.012 |
| rs16938437 | -0.096 | 0.039 | 0.014 |
| rs17351680 | -0.093 | 0.038 | 0.015 |
| rs1874984 | -0.103 | 0.039 | 0.009 |
| rs2153127 | -0.093 | 0.040 | 0.020 |
| rs2179786 | -0.098 | 0.039 | 0.013 |
| rs2184968 | -0.111 | 0.037 | 0.003 |
| rs2303100 | -0.099 | 0.039 | 0.012 |
| rs2344508 | -0.102 | 0.039 | 0.009 |
| rs2617056 | -0.099 | 0.039 | 0.012 |
| rs2687729 | -0.106 | 0.039 | 0.006 |
| rs2836950 | -0.104 | 0.039 | 0.008 |
| rs2947411 | -0.098 | 0.039 | 0.012 |
| rs3733632 | -0.098 | 0.039 | 0.013 |
| rs3743266 | -0.096 | 0.039 | 0.014 |
| rs3870341 | -0.104 | 0.039 | 0.008 |
| rs3914188 | -0.101 | 0.039 | 0.011 |
| rs4242496 | -0.096 | 0.039 | 0.014 |
| rs4369815 | -0.096 | 0.039 | 0.014 |
| rs466639 | -0.103 | 0.039 | 0.009 |
| rs4801589 | -0.102 | 0.039 | 0.009 |
| rs4840086 | -0.096 | 0.039 | 0.014 |
| rs618678 | -0.102 | 0.039 | 0.009 |
| rs633715 | -0.092 | 0.039 | 0.017 |
| rs6694738 | -0.102 | 0.039 | 0.009 |
| rs6747380 | -0.112 | 0.038 | 0.003 |
| rs6758290 | -0.100 | 0.039 | 0.011 |
| rs6770162 | -0.102 | 0.039 | 0.009 |
| rs6933660 | -0.102 | 0.039 | 0.009 |
| rs7103411 | -0.093 | 0.039 | 0.016 |
| rs7119712 | -0.097 | 0.039 | 0.013 |
| rs740077 | -0.102 | 0.039 | 0.009 |
| rs7642134 | -0.104 | 0.039 | 0.008 |
| rs7821178 | -0.106 | 0.039 | 0.007 |
| rs7853970 | -0.094 | 0.039 | 0.015 |
| rs7944630 | -0.106 | 0.039 | 0.006 |
| rs852069 | -0.099 | 0.039 | 0.012 |
| rs888345 | -0.104 | 0.039 | 0.008 |
| rs895526 | -0.098 | 0.039 | 0.012 |
| rs913588 | -0.096 | 0.039 | 0.014 |
| rs9373571 | -0.103 | 0.039 | 0.008 |
| rs9555810 | -0.100 | 0.039 | 0.011 |
| rs9565073 | -0.103 | 0.039 | 0.008 |
| rs9635759 | -0.096 | 0.039 | 0.015 |
| rs9647570 | -0.105 | 0.039 | 0.007 |
| rs9939609 | -0.092 | 0.039 | 0.017 |
| rs9997604 | -0.107 | 0.038 | 0.005 |

AAM: Age at menarche; MI: Myocardial infarction; SNPs: Single nucleotide polymorphisms; SE: Standard deviation.

Table S37. MR-PRESSO analysis for estimate of the association of genetically predicted AAM with genetically predicted MI.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| MR. Analysis | Estimate | Sd | T.stat | *P*.value |
| Raw | -0.099 | 0.039 | -2.564 | 1.26E-02 |
| Outlier-corrected\* | -0.111 | 0.037 | -3.018 | 3.63E-03 |

AAM: Age at menarche; MI: Myocardial infarction. \*Number of outliers: 1