

Supplementary Table S1. List of 57 Single Nucleotide Polymorphisms (SNPs), selected for the Polygenic Risk Score (PRS) calculation, with the most recent Beta value estimates.

| | SNP ID | Chromosome | Region/Gene | Reference allele | Alternative allele | Beta |
|----|------------|------------|----------------|------------------|--------------------|---------|
| 1 | rs3768013 | 1 | ARNT | G | A | -0,0765 |
| 2 | rs1858550 | 1 | PARP1 | C | A | -0,0836 |
| 3 | rs6750047 | 2 | RMDN2/CYP1B1 | A | G | -0,053 |
| 4 | rs4670813 | 2 | CYP1B1 | G | A | -0,0647 |
| 5 | rs7582362 | 2 | FLACC1 | A | G | -0,062 |
| 6 | rs7632095 | 3 | LOC102724419 | A | G | 0,03036 |
| 7 | rs12696304 | 3 | TERC/MYNN | C | G | -0,0618 |
| 8 | rs2282679 | 4 | GC | T | G | -0,0091 |
| 9 | rs75724758 | 4 | INPP4B | T | C | 0,04594 |
| 10 | rs380286 | 5 | CLPTM1L | G | A | 0,12738 |
| 11 | rs16891982 | 5 | SLC45A2 | C | G | 0,6298 |
| 12 | rs250417 | 5 | SLC45A2 | G | C | 0,62811 |
| 13 | rs72767211 | 5 | ANKRD55 | C | T | 0,00632 |
| 14 | rs11738706 | 5 | TENM2 | C | T | 0,06774 |
| 15 | rs12203592 | 6 | IRF4 | C | T | 0,13984 |
| 16 | rs9405705 | 6 | IRF4 | C | G | 0,04909 |
| 17 | rs6914598 | 6 | CDKAL1 | T | C | 0,0836 |
| 18 | rs9257445 | 6 | KRT18P1/ZNF311 | G | C | -0,002 |
| 19 | rs72909003 | 6 | LOC105377871 | G | A | 0,10959 |
| 20 | rs1636744 | 7 | AGR3 | C | T | 0,05774 |
| 21 | rs62444470 | 7 | intergenic | T | C | 0,13365 |
| 22 | rs661356 | 9 | DOCK8 | G | A | -0,0412 |
| 23 | rs72706189 | 9 | TYRP1 | T | C | 0,02809 |
| 24 | rs11532907 | 9 | MTAP | A | G | -0,1195 |

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|----|-------------|----|------------|---|---|---------|
| 25 | rs77283072 | 9 | CDKN2B-AS1 | G | A | 0,09069 |
| 26 | rs10739221 | 9 | TMEM38B | T | C | -0,0959 |
| 27 | rs7041168 | 9 | RNA5SP294 | G | T | -0,07 |
| 28 | rs2995264 | 10 | OBFC1/STN1 | G | A | -0,1398 |
| 29 | rs2290419 | 11 | CCND1 | A | G | -0,06 |
| 30 | rs498136 | 11 | CCND1 | A | C | -0,0811 |
| 31 | rs12422135 | 11 | CCND1 | A | G | -0,0688 |
| 32 | rs1126809 | 11 | TYR | G | A | 0,19784 |
| 33 | rs10830253 | 11 | TYR | T | G | 0,17483 |
| 34 | rs73008229 | 11 | ATM | G | A | -0,1164 |
| 35 | rs1640875 | 12 | GPRC5A | A | T | 0,08023 |
| 36 | rs184628474 | 14 | TTC7B | G | A | -0,0344 |
| 37 | rs4778138 | 15 | OCA2 | A | G | -0,1405 |
| 38 | rs7164220 | 15 | OCA2 | C | A | 0,13628 |
| 39 | rs145720174 | 15 | HERC2 | G | A | -0,2505 |
| 40 | rs74456670 | 15 | LYSMD2 | A | G | 0,03874 |
| 41 | rs12596638 | 16 | FTO | G | A | 0,08447 |
| 42 | rs11648879 | 16 | FANCA | A | G | 0,11227 |
| 43 | rs75570604 | 16 | FANCA | G | C | 0,44504 |
| 44 | rs35158985 | 16 | CDH1 | A | G | 0,07268 |
| 45 | rs1805005 | 16 | MC1R | G | T | -0,0055 |
| 46 | rs1805006 | 16 | MC1R | C | A | 0,40407 |
| 47 | rs2228479 | 16 | MC1R | G | A | 0,10358 |
| 48 | rs11547464 | 16 | MC1R | G | A | 0,32712 |
| 49 | rs1805007 | 16 | MC1R | C | T | 0,47209 |
| 50 | rs1110400 | 16 | MC1R | T | C | 0,16111 |

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|----|-----------|----|--------|---|---|---------|
| 51 | rs1805008 | 16 | MC1R | C | T | 0,32296 |
| 52 | rs885479 | 16 | MC1R | G | A | 0,06454 |
| 53 | rs1805009 | 16 | MC1R | G | C | 0,37411 |
| 54 | rs6060627 | 20 | BCL2L1 | C | T | -0,0301 |
| 55 | rs6088372 | 20 | RALY | C | T | 0,23332 |
| 56 | rs6059655 | 20 | RALY | A | G | -0,3416 |
| 57 | rs132985 | 22 | PLA2G6 | C | T | -0,0809 |