

S1 Table. Association of selected single nucleotide polymorphisms with incident myocardial infarction (sex-stratified analyses).

| SNP | Genotype | Men | | | | Women | | | |
|-------------------|----------------|------------------|----------------|----------------|------------------|----------------|----------------|------------------|----------------|
| | | Model A1* | | Model A2** | | Model A1* | | Model A2** | |
| | | p ^a | p ^b | p ^a | p ^b | p ^a | p ^b | p ^a | p ^b |
| ALOX-5 | rs12762303 T/T | 1 (ref) | | 1 (ref) | | 1 (ref) | | 1 (ref) | |
| | C/T | 0.99 (0.85;1.16) | 0.90 | - | 1.00 (0.84;1.18) | >0.99 | - | 0.83 (0.67;1.02) | 0.08 |
| | C/C | 1.46 (0.89;2.39) | 0.13 | - | 1.71 (1.03;2.84) | 0.04 | - | 0.93 (0.51;1.71) | 0.82 |
| FLAP | rs59439148 W/W | 1 (ref) | | 1 (ref) | | 1 (ref) | | 1 (ref) | |
| | W/V | 0.98 (0.84;1.15) | 0.84 | - | 1.01 (0.85;1.19) | 0.94 | - | 0.83 (0.67;1.03) | 0.08 |
| | V/V | 1.45 (0.95;2.20) | 0.09 | - | 1.63 (1.06;2.52) | 0.03 | - | 0.86 (0.51;1.46) | 0.59 |
| rs17222814 | G/G | 1 (ref) | | 1 (ref) | | 1 (ref) | | 1 (ref) | |
| | G/A | 0.90 (0.75;1.06) | 0.21 | 0.76 | 0.92 (0.77;1.10) | 0.36 | 0.93 | 0.98 (0.78;1.23) | 0.85 |
| | A/A | 1.24 (0.64;2.42) | 0.52 | 0.99 | 1.14 (0.56;2.30) | 0.72 | >0.99 | 1.26 (0.57;2.80) | 0.57 |
| rs4073259 | A/A | 1 (ref) | | 1 (ref) | | 1 (ref) | | 1 (ref) | |
| | A/G | 0.96 (0.83;1.12) | 0.63 | >0.99 | 0.94 (0.81;1.10) | 0.48 | 0.98 | 0.90 (0.74;1.09) | 0.28 |
| | G/G | 0.98 (0.79;1.21) | 0.85 | >0.99 | 0.97 (0.78;1.22) | 0.83 | >0.99 | 0.94 (0.70;1.26) | 0.66 |
| rs10507391 | T/T | 1 (ref) | | 1 (ref) | | 1 (ref) | | 1 (ref) | |
| | T/A | 1.02 (0.89;1.18) | 0.75 | >0.99 | 1.01 (0.86;1.17) | 0.94 | >0.99 | 0.94 (0.78;1.14) | 0.53 |
| | A/A | 0.97 (0.78;1.21) | 0.79 | >0.99 | 1.01 (0.79;1.28) | 0.95 | >0.99 | 0.90 (0.66;1.23) | 0.52 |
| rs4769874 | G/G | 1 (ref) | | 1 (ref) | | 1 (ref) | | 1 (ref) | |
| | G/A | 0.97 (0.75;1.25) | 0.80 | >0.99 | 1.03 (0.78;1.35) | 0.86 | >0.99 | 0.95 (0.65;1.38) | 0.77 |
| | A/A | 0.69 (0.10;4.76) | 0.71 | >0.99 | 1.14 (0.16;8.06) | 0.90 | >0.99 | - | - |
| rs9551963 | C/C | 1 (ref) | | 1 (ref) | | 1 (ref) | | 1 (ref) | |
| | C/A | 0.86 (0.73;1.02) | 0.08 | 0.39 | 0.83 (0.70;0.99) | 0.04 | 0.21 | 0.86 (0.69;1.06) | 0.16 |
| | A/A | 0.83 (0.69;1.00) | 0.06 | 0.29 | 0.78 (0.64;0.96) | 0.02 | 0.09 | 0.92 (0.71;1.18) | 0.50 |
| rs9315050 | A/A | 1 (ref) | | 1 (ref) | | 1 (ref) | | 1 (ref) | |
| | A/G | 1.01 (0.82;1.24) | 0.94 | >0.99 | 1.04 (0.83;1.29) | 0.74 | >0.99 | 1.10 (0.82;1.47) | 0.52 |
| | G/G | 1.06 (0.36;3.10) | 0.92 | >0.99 | 1.42 (0.47;4.32) | 0.53 | 0.99 | 0.16 (0.02;1.28) | 0.08 |
| rs17222842 | G/G | 1 (ref) | | 1 (ref) | | 1 (ref) | | 1 (ref) | |
| | G/A | 0.98 (0.82;1.17) | 0.80 | >0.99 | 0.98 (0.81;1.18) | 0.83 | >0.99 | 0.97 (0.77;1.22) | 0.79 |
| | A/A | 0.27 (0.12;0.59) | 0.00 | 0.01 | 0.28 (0.12;0.63) | 0.00 | 0.01 | 1.00 (0.41;2.43) | 0.99 |
| LTC4-S | rs730012 A/A | 1 (ref) | | 1 (ref) | | 1 (ref) | | 1 (ref) | |
| | A/C | 1.12 (0.97;1.29) | 0.11 | - | 1.11 (0.95;1.29) | 0.19 | - | 1.09 (0.90;1.32) | 0.37 |
| | C/C | 1.00 (0.78;1.27) | 0.98 | - | 0.98 (0.76;1.27) | 0.91 | - | 1.07 (0.78;1.48) | 0.67 |
| LTA4-H | rs61937881 C/C | 1 (ref) | | 1 (ref) | | 1 (ref) | | 1 (ref) | |
| | C/T | 0.99 (0.86;1.15) | 0.93 | >0.99 | 0.96 (0.82;1.12) | 0.59 | >0.99 | 1.21 (1.00;1.46) | 0.05 |
| | T/T | 1.16 (0.88;1.55) | 0.30 | 0.88 | 1.16 (0.86;1.58) | 0.33 | 0.91 | 1.24 (0.85;1.81) | 0.26 |

| | | | | | | | | | | | | | |
|------------|-----|------------------|------|-------|------------------|-------|-------|------------------|-------|-------|------------------|-------|-------|
| rs2660880 | G/G | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | |
| | G/A | 1.10 (0.89;1.35) | 0.40 | 0.95 | 1.09 (0.87;1.37) | 0.45 | 0.97 | 1.03 (0.79;1.34) | 0.83 | >0.99 | 0.99 (0.72;1.34) | 0.93 | >0.99 |
| | A/A | 0.57 (0.23;1.43) | 0.23 | 0.80 | 0.53 (0.21;1.37) | 0.19 | 0.72 | 1.53 (0.50;4.67) | 0.45 | 0.97 | 1.56 (0.46;5.23) | 0.48 | 0.98 |
| rs6538697 | T/T | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | |
| | T/C | 0.97 (0.80;1.18) | 0.76 | >0.99 | 1.00 (0.81;1.24) | 0.98 | >0.99 | 1.12 (0.87;1.44) | 0.40 | 0.95 | 1.04 (0.77;1.39) | 0.82 | >0.99 |
| | C/C | 0.98 (0.39;2.45) | 0.97 | >0.99 | 1.00 (0.39;2.57) | >0.99 | >0.99 | 0.97 (0.21;4.53) | 0.97 | >0.99 | 1.15 (0.23;5.80) | 0.87 | >0.99 |
| rs1978331 | T/T | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | |
| | T/C | 0.99 (0.86;1.15) | 0.94 | >0.99 | 0.98 (0.83;1.14) | 0.76 | >0.99 | 1.22 (1.00;1.49) | 0.05 | 0.26 | 1.30 (1.04;1.62) | 0.02 | 0.12 |
| | C/C | 1.12 (0.91;1.37) | 0.30 | 0.88 | 1.14 (0.92;1.43) | 0.24 | 0.80 | 1.24 (0.94;1.63) | 0.13 | 0.56 | 1.27 (0.93;1.74) | 0.13 | 0.56 |
| rs17677715 | T/T | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | |
| | T/C | 1.00 (0.86;1.15) | 0.95 | >0.99 | 0.96 (0.82;1.13) | 0.62 | >0.99 | 1.19 (0.98;1.44) | 0.09 | 0.42 | 1.32 (1.06;1.65) | 0.01 | 0.08 |
| | C/C | 1.26 (0.85;1.86) | 0.25 | 0.83 | 1.30 (0.86;1.98) | 0.21 | 0.76 | 1.26 (0.75;2.12) | 0.37 | 0.94 | 1.31 (0.76;2.24) | 0.33 | 0.91 |
| rs2247570 | A/A | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | |
| | A/G | 0.94 (0.82;1.09) | 0.41 | 0.96 | 0.93 (0.80;1.08) | 0.33 | 0.91 | 1.18 (0.98;1.43) | 0.08 | 0.40 | 1.20 (0.97;1.48) | 0.10 | 0.45 |
| | G/G | 1.28 (1.00;1.64) | 0.05 | 0.28 | 1.28 (0.98;1.67) | 0.07 | 0.35 | 1.11 (0.80;1.55) | 0.54 | 0.99 | 1.27 (0.88;1.82) | 0.20 | 0.74 |
| rs2660898 | T/T | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | |
| | T/G | 1.04 (0.90;1.20) | 0.57 | 0.99 | 1.02 (0.87;1.18) | 0.84 | >0.99 | 1.19 (0.99;1.44) | 0.07 | 0.35 | 1.22 (0.98;1.50) | 0.07 | 0.35 |
| | G/G | 1.03 (0.81;1.30) | 0.82 | >0.99 | 1.05 (0.82;1.34) | 0.72 | >0.99 | 1.26 (0.93;1.72) | 0.14 | 0.58 | 1.27 (0.89;1.82) | 0.18 | 0.70 |
| rs2540482 | A/A | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | |
| | A/G | 0.92 (0.80;1.07) | 0.28 | 0.87 | 0.94 (0.80;1.09) | 0.40 | 0.95 | 1.00 (0.83;1.21) | 0.96 | >0.99 | 1.00 (0.81;1.23) | 0.97 | >0.99 |
| | G/G | 1.10 (0.80;1.52) | 0.55 | 0.99 | 1.04 (0.74;1.46) | 0.84 | >0.99 | 0.88 (0.56;1.39) | 0.59 | >0.99 | 0.83 (0.50;1.37) | 0.46 | 0.98 |
| rs2540477 | T/T | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | |
| | T/C | 0.93 (0.81;1.07) | 0.32 | 0.90 | 0.95 (0.81;1.10) | 0.48 | 0.98 | 0.99 (0.82;1.20) | 0.95 | >0.99 | 0.96 (0.78;1.19) | 0.73 | >0.99 |
| | C/C | 1.13 (0.81;1.56) | 0.48 | 0.98 | 1.06 (0.75;1.50) | 0.75 | >0.99 | 0.94 (0.60;1.48) | 0.80 | >0.99 | 0.94 (0.57;1.56) | 0.82 | >0.99 |
| rs2660845 | A/A | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | |
| | A/G | 0.91 (0.79;1.04) | 0.17 | 0.67 | 0.90 (0.78;1.05) | 0.18 | 0.70 | 1.00 (0.83;1.21) | >0.99 | >0.99 | 0.98 (0.79;1.20) | 0.83 | >0.99 |
| | G/G | 1.05 (0.79;1.39) | 0.72 | 1.00 | 1.04 (0.77;1.41) | 0.78 | >0.99 | 0.98 (0.67;1.45) | 0.94 | >0.99 | 1.00 (0.65;1.55) | >0.99 | >0.99 |
| rs2540475 | C/C | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | | 1 (ref) | | |
| | C/T | 0.96 (0.83;1.11) | 0.58 | 0.99 | 0.93 (0.80;1.09) | 0.39 | 0.95 | 1.11 (0.92;1.35) | 0.28 | 0.86 | 1.12 (0.91;1.40) | 0.29 | 0.87 |
| | T/T | 0.94 (0.66;1.33) | 0.74 | >0.99 | 0.96 (0.67;1.38) | 0.83 | >0.99 | 0.75 (0.47;1.20) | 0.23 | 0.78 | 0.79 (0.47;1.33) | 0.38 | 0.94 |

Abbreviations: SNP, Single nucleotide polymorphism; ALOX-5, Arachidonate 5-lipoxygenase; ALOX-5 AP, Arachidonate 5-lipoxygenase activating protein; LTC4-S, Leukotriene C4 synthase; LTA4-H, Leukotriene A4 hydroxylase.

The table displays hazard ratios from a weighted cox proportional hazards model. Results are presented for sex-stratified analyses. Alleles correspond to the positive DNA-strand according to dbSNP, human assembly GRCh38.p2.

*Crude analyses. The pooled estimates are adjusted for sex.

**Adjusted analyses including sex(pooled analyses), smoking status, educational level, physical activity, BMI, waist circumference and alcohol consumption.

^aCrude p-value

^bAdjusted p-value corrected for multiple testing within each candidate gene. From the composite LD correlation matrix the number of independent tests (N) were estimated.

Using Sidák corrections, we then calculated the adjusted p-value as: $p^b = 1 - (1 - p^a)^N$.