



Figure S1. Location of SNPs within the interleukin genes.

Supplementary Table S1. Candidate SNPs that were screened with their reliability values.

| Gene name | rs id | Genomic change | Average GenTrain score | Average call rate score |
|--------------|------------|----------------|------------------------|-------------------------|
| <i>IL1B</i> | | | | |
| | rs1143643 | C>T | 0.77 | 0.99 |
| | rs78226748 | C>A | 0.85 | 0.99 |
| | rs1143634 | G>A | 0.76 | 0.99 |
| | rs1143627 | G>A | 0.82 | 0.99 |
| | rs16944 | A>G | 0.85 | 0.99 |
| <i>IL6</i> | | | | |
| | rs10499563 | T>C | 0.77 | 0.99 |
| | rs2069827 | G>T | 0.74 | 0.99 |
| | rs1800797 | A>G | 0.70 | 0.99 |
| | rs1800795 | C>G | 0.89 | 0.99 |
| | rs2069835 | T>C | 0.8 | 1.00 |
| | rs1554606 | T>G | 0.80 | 0.99 |
| | rs11544633 | T>C | 0.81 | 1.00 |
| | rs34012176 | dupC | 0.82 | 0.99 |
| | rs2069861 | C>T | 0.74 | 1.00 |
| <i>IL8</i> | | | | |
| | rs2227532 | T>C | 0.85 | 0.99 |
| | rs4073 | A>T | 0.88 | 0.99 |
| | rs2227307 | G>T | 0.72 | 0.99 |
| | rs2227306 | C>T | 0.69 | 0.98 |
| | rs2227543 | C>T | 0.84 | 0.98 |
| <i>IL10</i> | | | | |
| | rs3024498 | T>C | 0.76 | 0.99 |
| | rs1554286 | A>G | 0.81 | 0.99 |
| | rs1518111 | T>C | 0.74 | 0.99 |
| | rs1518110 | A>C | 0.72 | 0.99 |
| | rs3021094 | T>G | 0.87 | 0.99 |
| | rs1800872 | T>G | 0.83 | 0.99 |
| | rs1800896 | T>C | 0.85 | 0.98 |
| | rs1800893 | C>T | 0.68 | 0.74 |
| | *rs6693899 | G>T | NA | NA |
| | *rs6703630 | C>T | NA | NA |
| <i>IL12B</i> | | | | |
| | rs3212227 | T>G | 0.75 | 0.99 |
| | rs3213119 | C>A | 0.76 | 0.98 |
| | rs74644143 | C>T | 0.85 | 0.78 |
| | rs79446920 | C>T | 0.75 | 0.99 |
| | rs10045130 | C>T | 0.80 | 0.99 |
| | rs3213096 | C>T | 0.81 | 0.99 |
| | rs3213094 | C>T | 0.80 | 1.00 |
| | rs2569254 | C>T | 0.84 | 0.99 |
| | rs1433048 | G>A | 0.74 | 0.99 |
| | rs730691 | T>C | 0.73 | 0.99 |
| | rs17860508 | TTAGAG>GC | 0.64 | 0.99 |
| | rs6887695 | G>C | 0.85 | 1.00 |

*SNPs rs6693899 and rs6703630 were screened using sequencing on an automated DNA sequencer rather than the GoldenGate system and so lack GenTrain and Call rates. The SNPs highlighted in grey cells were either monomorphic (i.e. no-one had variations in the screened population) or had improper data clustering in the GoldenGate® assay (IL12B rs3213096 only) and so were excluded from further analysis. IL - interleukin; rs id - Reference SNP cluster identification; GenTrain score was computed from the GenTrain 2.0 clustering algorithm; Call rate score = the ratio of a number of genotypes exceeding the threshold value to the total number of genotypes. Both GenTrain and Call rate scores were provided by the manufacturer Illumina. A GenTrain score or Call Rate of above 0.7 usually indicates well-behaving genotypes.

Supplementary Table S2. Linkage disequilibrium between adjacent SNPs in each of the candidate genes.

| SNP1 | SNP2 | Linkage disequilibrium (D') |
|-------------------------------|-----------|-----------------------------|
| IL-1β | | |
| rs1143643 | rs1143634 | 1 |
| | rs1143627 | 0.96 |
| | rs16944 | 0.96 |
| rs1143634 | rs1143627 | 0.71 |
| | rs16944 | 0.7 |
| rs1143627 | rs16944 | 1 |
| IL-6 | | |
| rs10499563 | rs2069827 | 1 |
| | rs1800797 | 1 |
| | rs1800795 | 1 |
| | rs2069835 | 1 |
| | rs1554606 | 0.77 |
| | rs2069861 | 1 |
| rs2069827 | rs1800797 | 1 |
| | rs1800795 | 1 |
| | rs2069835 | 1 |
| | rs1554606 | 1 |
| | rs2069861 | 1 |
| rs1800797 | rs1800795 | 0.97 |
| | rs2069835 | 1 |
| | rs1554606 | 0.97 |
| | rs2069861 | 1 |
| rs1800795 | rs2069835 | 1 |
| | rs1554606 | 1 |
| | rs2069861 | 1 |
| rs2069835 | rs1554606 | 1 |
| | rs2069861 | 1 |
| rs1554606 | rs2069861 | 1 |
| IL-8 | | |
| rs4073 | rs2227307 | 1 |
| | rs2227306 | 1 |
| | rs2227543 | 1 |
| rs2227307 | rs2227306 | 1 |
| | rs2227543 | 1 |
| rs2227306 | rs2227543 | 1 |
| IL-10 | | |
| rs3024498 | rs1554286 | 0.96 |
| | rs1518111 | 1 |
| | rs1518110 | 1 |
| | rs3021094 | 1 |
| | rs1800872 | 1 |
| | rs1800896 | 1 |
| | rs1800893 | 1 |
| | rs6693899 | 0.87 |
| | rs6703630 | 0.96 |

| | | |
|---------------|------------|------|
| rs1554286 | rs1518111 | 1 |
| | rs1518110 | 1 |
| | rs3021094 | 0.65 |
| | rs1800872 | 1 |
| | rs1800896 | 1 |
| | rs1800893 | 1 |
| | rs6693899 | 1 |
| | rs6703630 | 1 |
| rs1518110 | rs1518110 | 0.97 |
| | rs3021094 | 0.61 |
| | rs1800872 | 1 |
| | rs1800896 | 1 |
| | rs1800893 | 1 |
| | rs6693899 | 1 |
| | rs6703630 | 1 |
| rs1518110 | rs3021094 | 0.63 |
| | rs1800872 | 0.98 |
| | rs1800896 | 1 |
| | rs1800893 | 1 |
| | rs6693899 | 0.93 |
| | rs6703630 | 1 |
| rs3021094 | rs1800872 | 1 |
| | rs1800896 | 1 |
| | rs1800893 | 1 |
| | rs6693899 | 1 |
| | rs6703630 | 1 |
| | rs1800872 | 1 |
| rs1800872 | rs1800893 | 1 |
| | rs6693899 | 1 |
| | rs6703630 | 1 |
| | rs1800893 | 1 |
| rs1800896 | rs6693899 | 1 |
| | rs6703630 | 1 |
| | rs6693899 | 1 |
| rs1800893 | rs6703630 | 1 |
| | rs6703630 | 1 |
| rs6693899 | | |
| IL-12B | rs3213094 | 1 |
| rs3212227 | rs2569254 | 1 |
| | rs1433048 | 1 |
| | rs730691 | 0.85 |
| | rs17860508 | 0.92 |
| | rs6887695 | 0.82 |
| | rs2569254 | 1 |
| rs3213094 | rs1433048 | 1 |
| | rs730691 | 0.86 |
| | rs17860508 | 0.92 |
| | rs6887695 | 0.63 |
| | rs1433048 | 0.79 |

| | | |
|-----------|------------|------|
| rs2569254 | rs730691 | 1 |
| | rs17860508 | 0.07 |
| | rs6887695 | 0.51 |
| | rs730691 | 0.79 |
| rs1433048 | rs17860508 | 0.15 |
| | rs6887695 | 0.51 |
| | rs17860508 | 1 |
| rs730691 | rs6887695 | 0.61 |
| | rs6887695 | 1 |

Supplementary Table S3. Differences in the frequency of interleukin SNPs for all cases versus controls.

| Gene | rs ID | Allele / Genotype | Frequency (%) | | χ^2 value | Corrected P value | OR (95% CI) |
|-------------|------------|-------------------|---------------|------------------|----------------|-------------------|-----------------------------|
| | | | Cases (N=145) | Controls (N=189) | | | |
| <i>IL1β</i> | rs1143643 | C | 71.7 | 77.2 | | | Reference |
| | | T | 28.3 | 22.8 | 0.1998 | 0.2 | 0.75 (0.45, 1.23) |
| | | CC | 51.7 | 58.7 | | | Reference |
| | | CT | 39.3 | 36.5 | 0.743 | 0.3796 | 1.223 (0.774, 1.931) |
| | | TT | 9 | 4.8 | 2.744 | 0.1079 | 2.138 (0.870, 5.253) |
| | rs1143634 | G | 86.9 | 84.1 | | | Reference |
| | | A | 13.1 | 15.9 | 0.317 | 0.4236 | 1.25 (0.67, 2.33) |
| | | GG | 75.2 | 71.4 | | | Reference |
| | | GA | 22.8 | 24.9 | 0.286 | 0.5964 | 0.870 (0.521, 1.451) |
| | | AA | 2.1 | 3.7 | 0.814 | 0.3686 | 0.531 (0.134, 2.101) |
| | rs1143627 | G | 59.3 | 64 | | | Reference |
| | | A | 40.7 | 36 | 1.392 | 0.4565 | 0.82 (0.52, 1.28) |
| | | GG | 37.9 | 38.6 | | | Reference |
| | | GA | 42.1 | 50.8 | 0.494 | 0.4835 | 0.843 (0.525, 1.356) |
| | | AA | 20 | 10.6 | 3.683 | 0.0639 | 1.925 (0.986, 3.756) |
| | rs16944 | A | 58.6 | 64 | | | Reference |
| | | G | 41.4 | 36 | 1.343 | 0.3107 | 1.26 (0.81, 1.96) |
| | | AA | 37.2 | 38.6 | | | Reference |
| | | AG | 42.8 | 51.3 | 0.364 | 0.5325 | 0.864 (0.538, 1.389) |
| | | GG | 20 | 10.1 | 4.397 | 0.036 | 2.063 (1.048, 4.061) |
| <i>IL6</i> | rs10499563 | T | 80 | 81.5 | | | Reference |
| | | C | 20 | 18.5 | 0.034 | 0.7792 | 1.10 (0.64, 1.90) |
| | | TT | 65.5 | 64.6 | | | Reference |
| | | TC | 29.7 | 33.9 | 0.378 | 0.5574 | 0.863 (0.539, 1.381) |
| | | CC | 4.8 | 1.6 | 2.434 | 0.1019 | 2.996 (0.755, 11.897) |
| | rs2069827 | G | 96.6 | 96.8 | | | Reference |
| | | T | 3.4 | 3.2 | 0.019 | 0.89 | 1.089 (0.326, 3.642) |
| | | GG | 93.1 | 94.2 | | | Reference |
| | | GT | 6.9 | 5.8 | 0.161 | 0.6623 | 1.199 (0.495, 2.905) |
| | | TT | 0 | 0 | - | - | - |
| | rs1800797 | G | 86.9 | 85.7 | | | Reference |
| | | A | 13.1 | 14.3 | 0.097 | 0.8921 | 1.11 (0.59, 2.08) |
| | | GG | 77.2 | 73 | | | Reference |
| | | AG | 19.3 | 25.4 | 0.27 | 0.2218 | 0.719 (0.424, 1.219) |
| | | AA | 3.4 | 1.6 | 0.741 | 0.3926 | 2.054 (0.480, 8.790) |
| | rs1800795 | G | 88.3 | 85.2 | | | Reference |

| | | | | | | | |
|-----------|-----------|------------|-------------|--------------|---------------|--------------|-----------------------------|
| | | C | 11.7 | 14.8 | 0.67 | 0.4136 | 0.76 (0.40, 1.46) |
| | | GG | 80 | 72 | | | Reference |
| | | GC | 16.6 | 26.5 | 4.257 | 0.046 | 0.563 (0.326, 0.972) |
| | | CC | 3.4 | 1.6 | 0.817 | 0.4535 | 1.954 (0.457, 8.352) |
| rs2069835 | T | 93.8 | 95.8 | | | | Reference |
| | C | 6.2 | 4.2 | 0.654 | 0.6314 | | 1.32 (0.51, 3.42) |
| | TT | 89.7 | 91 | | | | Reference |
| | TC | 9 | 9 | 0.001 | 0.8981 | | 1.012 (0.474, 2.157) |
| | CC | 1.4 | 0 | - | - | | - |
| rs1554606 | G | 82.1 | 82 | | | | Reference |
| | T | 17.9 | 18 | 0 | 0.8881 | | 1.00 (0.57, 1.76) |
| | GG | 70.3 | 66.7 | | | | Reference |
| | GT | 23.4 | 30.7 | 1.618 | 0.1888 | | 0.724 (0.440, 1.191) |
| | TT | 6.2 | 2.6 | 1.942 | 0.1678 | | 2.224 (0.723, 6.842) |
| rs2069861 | C | 98.6 | 98.4 | | | | Reference |
| | T | 1.4 | 1.6 | 0.024 | 0.877 | | 0.867 (0.143, 5.259) |
| | CC | 97.2 | 97.4 | | | | Reference |
| | CT | 2.8 | 2.6 | 0.004 | 0.95 | | 1.044 (0.275, 3.959) |
| | TT | 0 | 0 | - | - | | - |
| IL8 | A | 64.8 | 59.3 | | | | Reference |
| | T | 35.2 | 40.7 | 0.605 | 0.3147 | | 0.79 (0.50, 1.23) |
| | AA | 39.3 | 37.6 | | | | Reference |
| | AT | 51.7 | 43.9 | 0.245 | 0.6144 | | 1.126 (0.705, 1.797) |
| | TT | 9 | 18.5 | 4.333 | 0.041 | | 0.463 (0.224, 0.956) |
| rs2227307 | T | 66.9 | 64 | | | | Reference |
| | G | 33.1 | 36 | 0.102 | 0.5794 | | 0.88 (0.56, 1.39) |
| | TT | 41.4 | 43.4 | | | | Reference |
| | TG | 51 | 41.3 | 1.222 | 0.2777 | | 1.297 (0.818, 2.055) |
| | GG | 7.6 | 15.3 | 2.799 | 0.0929 | | 0.518 (0.240, 1.119) |
| rs2227306 | C | 79.3 | 77.8 | | | | Reference |
| | T | 20.7 | 22.2 | 0.803 | 0.6893 | | 1.10 (0.65, 1.86) |
| | CC | 62.1 | 63 | | | | Reference |
| | CT | 34.5 | 29.6 | 0.48 | 0.4975 | | 1.181 (0.738, 1.888) |
| | TT | 3.4 | 7.4 | 1.935 | 0.1598 | | 0.472 (0.164, 1.359) |
| rs2227543 | C | 70.3 | 66.1 | | | | Reference |
| | T | 29.7 | 33.9 | 0.046 | 0.4156 | | 1.21 (0.76, 1.94) |
| | CC | 46.9 | 46 | | | | Reference |
| | CT | 46.2 | 40.2 | 0.267 | 0.6134 | | 1.128 (0.714, 1.781) |
| | TT | 6.9 | 13.8 | 3.054 | 0.0879 | | 0.492 (0.222, 1.090) |
| IL10 | rs3024498 | T | 90.3 | 91 | | | Reference |
| | | C | 9.7 | 9 | 0.042 | 0.6863 | 1.08 (0.51, 2.27) |

| | | | | | | | |
|-----------|----|------|------|-------|--------|--------|-----------------------|
| | | TT | 82.8 | 82.5 | | | Reference |
| | | TC | 15.2 | 16.9 | 0.138 | 0.7423 | 0.894 (0.494, 1.617) |
| | | CC | 2.1 | 0.5 | 1.374 | 0.1379 | 3.900 (0.401, 37.96) |
| rs1554286 | G | 56.6 | 58.2 | | | | Reference |
| | A | 43.2 | 41.8 | 0.006 | 0.8262 | | 0.93 (0.60, 1.45) |
| | GG | 34.5 | 35.4 | | | | Reference |
| | GA | 43.5 | 45 | 0.001 | 0.977 | | 0.993 (0.608, 1.622) |
| | AA | 22.1 | 19.6 | 0.233 | 0.6503 | | 1.159 (0.637, 2.108) |
| rs1518111 | C | 52.4 | 56.1 | | | | Reference |
| | T | 47.6 | 43.9 | 0.326 | 0.5335 | | 0.86 (0.56, 1.33) |
| | CC | 31.7 | 31.7 | | | | Reference |
| | CT | 41.4 | 48.1 | 0.344 | 0.5644 | | 0.860 (0.520, 1.423) |
| | TT | 26.9 | 20.1 | 0.942 | 0.3277 | | 1.339 (0.743, 2.413) |
| rs1518110 | C | 52.4 | 56.1 | | | | Reference |
| | A | 47.6 | 43.9 | 0.446 | 0.5514 | | 0.86 (0.56, 1.33) |
| | CC | 30.3 | 31.2 | | | | Reference |
| | CA | 44.1 | 49.2 | 0.098 | 0.1938 | | 0.923 (0.558, 1.527) |
| | AA | 25.5 | 19.6 | 0.918 | 0.3307 | | 1.341 (0.736, 2.443) |
| rs3021094 | T | 89 | 90.5 | | | | Reference |
| | G | 11 | 9.5 | 2.878 | 0.7413 | | 1.18 (0.58, 2.40) |
| | TT | 80 | 82 | | | | Reference |
| | TG | 18.6 | 17.5 | 0.096 | 0.7483 | | 1.093 (0.623, 1.919) |
| | GG | 1.4 | 0.5 | 0.638 | 0.1049 | | 2.672 (0.239, 29.829) |
| rs1800872 | G | 50.3 | 54.5 | | | | Reference |
| | T | 49.7 | 45.5 | 0.567 | 0.3996 | | 0.85 (0.55, 1.31) |
| | GG | 27.6 | 30.2 | | | | Reference |
| | GT | 45.5 | 48.1 | 0.016 | 0.3227 | | 1.034 (0.747, 2.461) |
| | TT | 26.9 | 21.7 | 0.999 | 0.2867 | | 1.355 (0.747, 1.727) |
| rs1800896 | T | 77.2 | 78.3 | | | | Reference |
| | C | 22.8 | 21.7 | 0.054 | 0.9011 | | 1.06 (0.63, 1.79) |
| | TT | 60 | 60.8 | | | | Reference |
| | TC | 34.5 | 34.9 | 0 | 0.982 | | 1.001 (0.631, 1.588) |
| | CC | 5.5 | 4.2 | 0.288 | 0.5854 | | 1.322 (0.477, 3.661) |
| rs1800893 | C | 75.9 | 78.3 | | | | Reference |
| | T | 24.1 | 21.7 | 2.241 | 0.5055 | | 0.87 (0.52, 1.46) |
| | CC | 57.2 | 60.3 | | | | Reference |
| | CT | 36.6 | 35.4 | 0.126 | 0.7502 | | 1.085 (0.687, 1.718) |
| | TT | 6.2 | 4.2 | 0.737 | 0.3477 | | 1.545 (0.572, 4.173) |
| rs6693899 | G | 78.6 | 83.6 | | | | Reference |
| | T | 21.4 | 16.4 | 1.338 | 0.1978 | | 1.39 (0.80, 2.41) |
| | GG | 64.1 | 71.4 | | | | Reference |

| | | | | | | | |
|-------|------------|----|--------------|--------------|--------------|---------------|-----------------------------|
| IL12B | rs6703630 | GT | 29 | 24.9 | 1.07 | 0.2967 | 1.297 (0.792, 2.124) |
| | | TT | 6.9 | 3.7 | 2.038 | 0.1518 | 2.074 (0.762, 5.645) |
| | rs3212227 | C | 91.7 | 92.1 | | | Reference |
| | | T | 8.3 | 7.9 | 0.013 | 0.8432 | 1.05 (0.47, 2.31) |
| | | CC | 84.8 | 85.2 | | | Reference |
| | | CT | 14.5 | 14.3 | 0.003 | 0.8901 | 1.018 (0.549, 1.886) |
| | | TT | 0.7 | 0.5 | 0.036 | 0.2767 | 1.309 (0.081, 21.135) |
| | rs3213094 | T | 59.66 | 59.79 | | | Reference |
| | | G | 40.34 | 40.21 | 0.019 | 0.968 | |
| | | TT | 36.8 | 36.5 | | | Reference |
| | | TG | 45.5 | 46.6 | 0.056 | 0.7572 | 0.929 (0.575, 1.502) |
| | | GG | 17.7 | 16.9 | 0.09 | 0.7892 | 1.078 (0.578, 2.012) |
| | rs2569254 | C | 59.66 | 60.05 | | | Reference |
| | | T | 40.34 | 39.95 | 0.003 | 0.953 | 1.013 (0.651, 1.576) |
| | | CC | 37.24 | 36.51 | | | Reference |
| | | CT | 44.83 | 47.09 | 0.08 | 0.777 | 0.933 (0.578, 1.506) |
| | | TT | 17.93 | 16.4 | 0.046 | 0.83 | 1.072 (0.570, 2.015) |
| | rs1433048 | C | 90 | 85.71 | | | Reference |
| | | T | 10 | 14.29 | 1.634 | 0.204 | 0.641 (0.323, 1.272) |
| | | CC | 82.76 | 74.07 | | | Reference |
| | | CT | 14.48 | 23.28 | 3.995 | 0.0446 | 0.557 (0.314, 0.989) |
| | | TT | 2.76 | 2.65 | 0.01 | 0.8092 | 0.933 (0.245, 3.554) |
| | rs730691 | A | 88.3 | 91 | | | Reference |
| | | G | 11.7 | 9 | 0.669 | 0.415 | 0.744 (0.366, 1.514) |
| | | AA | 77.2 | 82.5 | | | Reference |
| | | GA | 21.4 | 16.9 | 1.136 | 0.311 | 1.349 (0.778, 2.340) |
| | | GG | 1.4 | 0.5 | 0.693 | 0.27 | 2.786 (0.250, 31.10) |
| | rs17860508 | T | 49.7 | 53.4 | | | Reference |
| | | C | 50.3 | 46.6 | 0.471 | 0.493 | 1.164 (0.755, 1.795) |
| | | TT | 28.3 | 25.4 | | | Reference |
| | | TC | 42.8 | 57.1 | 7.973 | 0.005 | 0.451 (0.260, 0.784) |
| | | CC | 29 | 17.5 | 1.601 | 0.2128 | 0.671 (0.362, 1.245) |
| | rs6887695 | C | 90.3 | 89.9 | | | Reference |
| | | T | 9.7 | 10.1 | 0 | 0.999 | 0.95 (0.46, 1.98) |
| | | CC | 80.0 | 79.4 | | | Reference |
| | | CT | 20.0 | 20.6 | 0 | 0.892 | 0.96 (0.56, 1.63) |
| | | TT | 0.0 | 0.0 | - | - | - |

| | | | | | | | |
|--|--|----|------|------|-------|--------|----------------------|
| | | CC | 15.9 | 15.3 | 0.038 | 0.8611 | 0.936 (0.482, 1.819) |
|--|--|----|------|------|-------|--------|----------------------|

Data in bold type indicates significant differences ($p<0.05$) between cases and controls. The data in bold and italics indicates trends ($P<0.1$) between cases and controls. rs id - Reference SNP cluster identification; OR - Odds ratio; CI = confidence interval.

Supplementary Table S4. Differences in the frequency of interleukin SNPs for MK only versus controls.

| Gene | rs ID | Allele / Genotype | Frequency (%) | | X ² value | Corrected p value | OR (95% CI) |
|-------------|------------|-------------------|---------------|------------------|----------------------|-------------------|---------------------------|
| | | | Cases (N=81) | Controls (N=189) | | | |
| <i>IL1β</i> | rs1143643 | C | 70.4 | 77.2 | | | Reference |
| | | T | 29.6 | 22.8 | 1.44 | 0.297 | 1.43 (0.80, 2.57) |
| | | CC | 49.4 | 58.7 | | | Reference |
| | | CT | 42.0 | 36.5 | 1.26 | 0.276 | 1.37 (0.79, 2.36) |
| | | TT | 8.6 | 4.8 | 1.36 | 0.139 | 2.16 (0.75, 6.18) |
| | rs1143634 | G | 88.3 | 84.1 | | | Reference |
| | | A | 11.7 | 15.9 | 0.69 | 0.329 | 0.66 (0.3, 1.47) |
| | | GG | 77.8 | 71.4 | | | Reference |
| | | GA | 21 | 24.9 | 0.41 | 0.431 | 0.78 (0.41, 1.46) |
| | | AA | 1.2 | 3.7 | 0.59 | 0.205 | 0.31 (0.04, 2.54) |
| | rs1143627 | G | 58.6 | 64 | | | Reference |
| | | A | 41.4 | 36 | 0.36 | 0.486 | 1.22 (0.72, 2.09) |
| | | GG | 39.5 | 38.6 | | | Reference |
| | | GA | 38.3 | 50.8 | 0.78 | 0.318 | 0.74 (0.41, 1.32) |
| | | AA | 22.2 | 10.6 | 2.8 | 0.069 | 2.05 (0.96, 4.39) |
| | rs16944 | A | 58 | 64 | | | Reference |
| | | G | 42 | 36 | 0.77 | 0.408 | 1.32 (0.77, 2.24) |
| | | AA | 38.3 | 38.6 | | | Reference |
| | | AG | 39.5 | 51.3 | 0.62 | 0.380 | 0.76 (0.43, 1.36) |
| | | GG | 22.2 | 10.1 | 3.34 | 0.036 | 2.20 (1.02, 4.75) |
| <i>IL6</i> | rs10499563 | T | 81.5 | 81.5 | | | Reference |
| | | C | 18.5 | 18.5 | 0.03 | 1.000 | 1 (0.51, 1.95) |
| | | TT | 67.9 | 64.6 | | | Reference |
| | | TC | 27.2 | 33.9 | 0.6 | 0.350 | 0.76 (0.43, 1.36) |
| | | CC | 4.9 | 1.6 | 2.1 | 0.093 | 2.95 (0.64, 13.66) |
| | rs2069827 | G | 95.1 | 96.8 | | | Reference |
| | | T | 4.9 | 3.2 | 0.12 | 0.728 | 1.58 (0.43, 5.77) |
| | | GG | 90.1 | 94.2 | | | Reference |
| | | GT | 9.9 | 5.8 | 0.87 | 0.200 | 1.77 (0.69, 4.59) |
| | | TT | 0.0 | 0 | - | - | - |
| | rs1800797 | G | 86.4 | 85.7 | | | Reference |
| | | A | 13.6 | 14.3 | 0.001 | 0.872 | 0.94 (0.44, 2.01) |
| | | GG | 75.3 | 73 | | | Reference |
| | | AG | 21.0 | 25.4 | 0.28 | 0.521 | 0.8 (0.43, 1.50) |
| | | AA | 3.7 | 1.6 | 0.31 | 0.213 | 2.88 (0.56, 14.73) |
| | rs1800795 | G | 87.7 | 85.2 | | | Reference |
| | | C | 12.3 | 14.8 | 0.12 | 0.578 | 0.81 (0.37, 1.76) |

| | | | | | | | |
|-----------|-----------|------------|-------------|-------------|--------------|-------|--------------------------|
| | | GG | 79.0 | 72 | | | Reference |
| | | GC | 17.3 | 26.5 | 1.93 | 0.102 | 0.59 (0.31, 1.16) |
| | | CC | 3.7 | 1.6 | 0.24 | 0.265 | 2.13 (0.42, 10.82) |
| rs2069835 | T | 92.6 | 95.8 | | | | Reference |
| | C | 7.4 | 4.2 | 0.6 | 0.244 | | 1.81 (0.61, 5.39) |
| | TT | 86.4 | 91 | | | | Reference |
| | TC | 12.3 | 9 | 0.43 | 0.402 | | 1.45 (0.63, 3.31) |
| | CC | 1.2 | 0 | - | - | | - |
| rs1554606 | G | 82.7 | 82 | | | | Reference |
| | T | 17.3 | 18 | 0.001 | 1.000 | | 0.95 (0.48, 1.89) |
| | GG | 69.1 | 66.7 | | | | Reference |
| | GT | 25.9 | 30.7 | 0.28 | 0.481 | | 0.82 (0.45, 1.47) |
| | TT | 4.9 | 2.6 | 0.24 | 0.398 | | 1.8 (0.47, 6.96) |
| rs2069861 | C | 100.0 | 98.4 | | | | Reference |
| | T | 0.0 | 1.6 | - | - | | - |
| | CC | 100.0 | 97.4 | | | | Reference |
| | CT | 0.0 | 2.6 | - | - | | - |
| | TT | 0 | 0 | - | - | | - |
| IL8 | A | 66.7 | 59.3 | | | | Reference |
| | T | 33.3 | 40.7 | 1.02 | 0.397 | | 0.73 (0.42, 1.26) |
| | AA | 40.7 | 37.6 | | | | Reference |
| | AT | 50.6 | 43.9 | 0.02 | 0.811 | | 1.00 (0.56, 1.75) |
| | TT | 8.6 | 18.5 | 2.7 | 0.062 | | 0.43 (0.17, 1.07) |
| rs2227307 | T | 67.9 | 64 | | | | Reference |
| | G | 32.1 | 36 | 0.22 | 0.584 | | 0.84 (0.48, 1.46) |
| | TT | 42.0 | 43.4 | | | | Reference |
| | TG | 51.9 | 41.3 | 0.63 | 0.346 | | 1.3 (0.75, 2.25) |
| | GG | 6.2 | 15.3 | 2.21 | 0.086 | | 0.42 (0.15, 1.17) |
| rs2227306 | C | 79.0 | 77.8 | | | | Reference |
| | T | 21.0 | 22.2 | 0.004 | 0.862 | | 0.93 (0.49, 1.76) |
| | CC | 60.5 | 63 | | | | Reference |
| | CT | 35.8 | 29.6 | 0.44 | 0.429 | | 1.26 (0.72, 2.2) |
| | TT | 3.7 | 7.4 | 0.523 | 0.339 | | 0.52 (0.14, 1.89) |
| rs2227543 | C | 70.4 | 66.1 | | | | Reference |
| | T | 29.6 | 33.9 | 0.02 | 0.541 | | 0.92 (0.52, 1.63) |
| | CC | 46.9 | 46 | | | | Reference |
| | CT | 46.9 | 40.2 | 3.3 | 0.117 | | 1.81 (1, 3.29) |
| | TT | 6.2 | 13.8 | 0.18 | 0.6214 | | 0.7 (0.24, 2.01) |
| IL10 | T | 90.1 | 91 | | | | Reference |
| | C | 9.9 | 9 | 0 | 0.831 | | 1.11 (0.46, 2.68) |
| | TT | 82.7 | 82.5 | | | | Reference |
| | TC | 14.8 | 16.9 | 0.04 | 0.697 | | 0.87 (0.42, 1.8) |
| | CC | 2.5 | 0.5 | 0.543 | 0.102 | | 1.16 (0.10, 13.06) |

| | | | | | | | |
|--|--|----|------|------|-------|-------|--------------------|
| | | G | 54.3 | 58.2 | | | Reference |
| | | A | 45.7 | 41.8 | 0.21 | 0.589 | 1.17 (0.69, 1.98) |
| | | GG | 32.1 | 35.4 | | | Reference |
| | | GA | 43.2 | 45 | 0 | 0.832 | 1.06 (0.58, 1.93) |
| | | AA | 24.7 | 19.6 | 0.54 | 0.357 | 1.39 (0.69, 2.83) |
| | | C | 49.4 | 56.1 | | | Reference |
| | | T | 50.6 | 43.9 | 0.77 | 0.270 | 1.31 (0.78, 2.21) |
| | | CC | 29.6 | 31.7 | | | Reference |
| | | CT | 38.3 | 48.1 | 0.12 | 0.606 | 0.85 (0.46, 1.59) |
| | | TT | 32.1 | 20.1 | 1.85 | 0.115 | 1.71 (0.86, 3.4) |
| | | C | 49.4 | 56.1 | | | Reference |
| | | A | 50.6 | 43.9 | 0.77 | 0.284 | 1.31 (0.78, 2.21) |
| | | CC | 27.2 | 31.2 | | | Reference |
| | | CA | 43.2 | 49.2 | 0.02 | 0.999 | 1.01 (0.54, 1.89) |
| | | AA | 29.6 | 19.6 | 1.83 | 0.120 | 1.74 (0.86, 3.54) |
| | | T | 87.7 | 90.5 | | | Reference |
| | | G | 12.3 | 9.5 | 0.23 | 0.419 | 1.34 (0.59, 3.04) |
| | | TT | 75.3 | 82 | | | Reference |
| | | TG | 23.5 | 17.5 | 1.01 | 0.231 | 1.46 (0.77, 2.77) |
| | | GG | 1.2 | 0.5 | 0.012 | 0.360 | 2.54 (0.16, 41.27) |
| | | G | 46.9 | 54.5 | | | Reference |
| | | T | 53.1 | 45.5 | 1.02 | 0.294 | 1.36 (0.8, 2.28) |
| | | GG | 25.9 | 30.2 | | | Reference |
| | | GT | 42.0 | 48.1 | 0.01 | 0.999 | 1.01 (0.54, 1.92) |
| | | TT | 32.1 | 21.7 | 1.81 | 0.116 | 1.72 (0.85, 3.47) |
| | | T | 76.5 | 78.3 | | | Reference |
| | | C | 23.5 | 21.7 | 0.03 | 0.761 | 1.11 (0.6, 2.06) |
| | | TT | 59.3 | 60.8 | | | Reference |
| | | TC | 34.6 | 34.9 | 0.01 | 0.940 | 1.02 (0.58, 1.77) |
| | | CC | 6.2 | 4.2 | 0.135 | 0.467 | 1.5 (0.47, 4.81) |
| | | C | 75.3 | 78.3 | | | Reference |
| | | T | 24.7 | 21.7 | 0.15 | 0.640 | 1.18 (0.64, 2.18) |
| | | CC | 56.8 | 60.3 | | | Reference |
| | | CT | 37.0 | 35.4 | 0.05 | 0.736 | 1.11 (0.64, 1.92) |
| | | TT | 6.2 | 4.2 | 0.178 | 0.446 | 1.55 (0.48, 4.98) |
| | | G | 80.2 | 83.6 | | | Reference |
| | | T | 19.8 | 16.4 | 0.24 | 0.620 | 1.26 (0.64, 2.45) |
| | | GG | 67.9 | 71.4 | | | Reference |
| | | GT | 24.7 | 24.9 | 0 | 0.867 | 1.05 (0.57, 1.92) |
| | | TT | 7.4 | 3.7 | 0.993 | 0.177 | 2.10 (0.68, 6.54) |
| | | C | 92.6 | 92.1 | | | Reference |
| | | T | 7.4 | 7.9 | 0.01 | 1.000 | 0.93 (0.35, 2.48) |
| | | CC | 86.4 | 85.2 | | | Reference |

| | | | | | | | |
|-------|------------|----|-------------|-------------|-------------|--------------|--------------------------|
| | | CT | 12.3 | 14.3 | 0.04 | 0.678 | 0.85 (0.39, 1.86) |
| | | TT | 1.2 | 0.5 | 0.029 | 0.866 | 2.3 (0.14, 37.3) |
| IL12B | rs3212227 | T | 56.8 | 59.8 | | | Reference |
| | | G | 43.2 | 40.2 | 0.1 | 0.486 | 1.13 (0.67, 1.92) |
| | | TT | 35.8 | 36.5 | | | Reference |
| | | TG | 40.7 | 46.6 | 0.05 | 0.731 | 0.89 (0.49, 1.61) |
| | | GG | 23.5 | 16.9 | 0.59 | 0.352 | 1.41 (0.69, 2.89) |
| | rs3213094 | C | 56.8 | 60.1 | | | Reference |
| | | T | 43.2 | 40.0 | 0.1 | 0.686 | 1.13 (0.67, 1.92) |
| | | CC | 35.8 | 36.5 | | | Reference |
| | | CT | 42.0 | 47.1 | 0.03 | 0.768 | 0.91 (0.51, 1.63) |
| | | TT | 22.2 | 16.4 | 0.47 | 0.387 | 1.38 (0.67, 2.85) |
| | rs2569254 | C | 91.4 | 85.7 | | | Reference |
| | | T | 8.6 | 14.3 | 1.17 | 0.189 | 0.57 (0.24, 1.36) |
| | | CC | 85.2 | 74.1 | | | Reference |
| | | CT | 12.3 | 23.3 | 3.63 | 0.045 | 0.46 (0.22, 0.97) |
| | | TT | 2.5 | 2.7 | 0.027 | 0.600 | 0.81 (0.15, 4.29) |
| | rs1433048 | A | 87.7 | 91.0 | | | Reference |
| | | G | 12.3 | 9.0 | 0.38 | 0.513 | 1.43 (0.62, 3.26) |
| | | AA | 77.8 | 82.5 | | | Reference |
| | | GA | 19.8 | 16.9 | 0.21 | 0.523 | 1.24 (0.64, 2.41) |
| | | GG | 2.5 | 0.5 | 0.631 | 0.205 | 4.95 (0.44, 55.6) |
| | rs730691 | T | 53.1 | 53.4 | | | Reference |
| | | C | 46.9 | 46.6 | 0.01 | 0.999 | 1.01 (0.6, 1.71) |
| | | TT | 32.1 | 25.4 | | | Reference |
| | | TC | 40.7 | 57.1 | 2.79 | 0.007 | 0.56 (0.31, 1.05) |
| | | CC | 27.2 | 17.5 | 0.15 | 0.137 | 1.23 (0.6, 2.53) |
| | rs17860508 | C | 90.1 | 89.9 | | | Reference |
| | | T | 9.9 | 10.1 | 0.02 | 0.999 | 1.03 (0.43, 2.46) |
| | | CC | 80.2 | 79.4 | | | Reference |
| | | CT | 19.8 | 20.6 | 0 | 1.000 | 0.95 (0.49, 1.82) |
| | | TT | 0.0 | 0.0 | - | - | - |
| | rs6887695 | G | 60.5 | 58.2 | | | Reference |
| | | C | 39.5 | 41.8 | 0.05 | 0.892 | 0.91 (0.53, 1.55) |
| | | GG | 35.8 | 31.2 | | | Reference |
| | | GC | 48.1 | 53.4 | 0.45 | 0.406 | 0.79 (0.44, 1.4) |
| | | CC | 16.0 | 15.3 | 0 | 0.8172 | 0.91 (0.41, 2.01) |

Data in bold type indicates significant differences ($p<0.05$) between cases and controls. Data in bold and italics indicates a trend ($p<0.1$) for a difference between cases and controls. rs id - Reference SNP cluster identification; OR - Odds ratio; CI = confidence interval

Supplementary Table S5. Differences in the frequency of interleukin SNPs for SK only versus controls.

| Gene | rs ID | Allele / Genotype | Frequency (%) | | X ² value | Corrected p value | OR (95% CI) |
|-------------|------------|-------------------|---------------|------|----------------------|-------------------|--------------------|
| | | | Cases (N=64) | | Controls (N=189) | | |
| <i>IL1β</i> | rs1143643 | C | 73.4 | 77.2 | | | Reference |
| | | T | 26.6 | 22.8 | 0.04 | 0.583 | 1.12 (0.59, 2.14) |
| | | CC | 54.7 | 58.7 | | | Reference |
| | | CT | 35.9 | 36.5 | 0 | 0.827 | 1.06 (0.58, 1.94) |
| | | TT | 9.4 | 4.8 | 1.09 | 0.126 | 2.11 (0.70, 6.36) |
| | rs1143634 | G | 84.4 | 84.1 | | | Reference |
| | | A | 15.6 | 15.9 | 0.02 | 0.829 | 0.98 (0.45, 2.14) |
| | | GG | 71.9 | 71.4 | | | Reference |
| | | GA | 25.0 | 24.9 | 0.03 | 0.960 | 1 (0.52, 1.93) |
| | | AA | 3.1 | 3.7 | 0.016 | 0.749 | 0.84 (0.17, 4.18) |
| | rs1143627 | G | 59.4 | 64 | | | Reference |
| | | A | 40.6 | 36 | 0.27 | 0.540 | 1.22 (0.68, 2.18) |
| | | GG | 35.9 | 38.6 | | | Reference |
| | | GA | 46.9 | 50.8 | 0.02 | 0.975 | 0.99 (0.53, 1.85) |
| | | AA | 17.2 | 10.6 | 1.05 | 0.216 | 1.75 (0.73, 4.18) |
| | rs16944 | A | 59.4 | 64 | | | Reference |
| | | G | 40.6 | 36 | 0.27 | 0.518 | 1.22 (0.68, 2.18) |
| | | AA | 35.9 | 38.6 | | | Reference |
| | | AG | 46.9 | 51.3 | 0.01 | 0.962 | 0.98 (0.53, 1.83) |
| | | GG | 17.2 | 10.1 | 1.28 | 0.1628 | 1.84 (0.76, 4.42) |
| <i>IL6</i> | rs10499563 | T | 79.7 | 81.5 | | | Reference |
| | | C | 20.3 | 18.5 | 0.02 | 0.569 | 1.12 (0.55, 2.28) |
| | | TT | 62.5 | 64.6 | | | Reference |
| | | TC | 32.8 | 33.9 | 0.02 | 0.983 | 1 (0.55, 1.84) |
| | | CC | 4.7 | 1.6 | 0.84 | 0.112 | 3.05 (0.59, 15.72) |
| | rs2069827 | G | 98.4 | 96.8 | | | Reference |
| | | T | 1.6 | 3.2 | 0.05 | 0.682 | 0.48 (0.06, 4.1) |
| | | GG | 96.9 | 94.2 | | | Reference |
| | | GT | 3.1 | 5.8 | 0.27 | 0.523 | 0.52 (0.11, 2.42) |
| | | TT | 0.0 | 0 | - | - | - |
| | rs1800797 | G | 89.1 | 85.7 | | | Reference |
| | | A | 10.9 | 14.3 | 0.22 | 0.538 | 0.74 (0.30, 1.78) |
| | | GG | 79.7 | 73 | | | Reference |
| | | AG | 17.2 | 25.4 | 1.25 | 0.213 | 0.62 (0.3, 1.29) |
| | | AA | 3.1 | 1.6 | 0.019 | 0.324 | 1.80 (0.29, 11.11) |
| | rs1800795 | G | 89.1 | 85.2 | | | Reference |
| | | C | 10.9 | 14.8 | 0.32 | 0.419 | 0.71 (0.29, 1.71) |

| | | | | | | | |
|------|-----------|-----------|------------|------------|-------------|--------------|-------------------------|
| | | GG | 81.3 | 72 | | | Reference |
| | | GC | 15.6 | 26.5 | 2.37 | 0.113 | 0.52 (0.25, 1.11) |
| | | CC | 3.1 | 1.6 | 0.01 | 0.340 | 1.74 (0.28, 10.74) |
| IL8 | rs2069835 | T | 96.9 | 95.8 | | | Reference |
| | | C | 3.1 | 4.2 | 0 | 1.000 | 0.73 (0.15, 3.53) |
| | | TT | 93.8 | 91 | | | Reference |
| | | TC | 4.7 | 9 | 0.65 | 0.300 | 0.51 (0.14, 1.79) |
| | | CC | 1.6 | 0 | - | - | - |
| IL8 | rs1554606 | G | 82.8 | 82 | | | Reference |
| | | T | 17.2 | 18 | 0 | 1.000 | 0.95 (0.45, 2.0) |
| | | GG | 71.9 | 66.7 | | | Reference |
| | | GT | 20.3 | 30.7 | 1.51 | 0.164 | 0.61 (0.31, 1.22) |
| | | TT | 7.8 | 2.6 | 1.51 | 0.090 | 2.74 (0.76, 9.9) |
| IL8 | rs2069861 | C | 96.9 | 98.4 | | | Reference |
| | | T | 3.1 | 1.6 | 0.06 | 0.603 | 2.00 (0.33, 12.25) |
| | | CC | 93.8 | 97.4 | | | Reference |
| | | CT | 6.3 | 2.6 | 0.912 | 0.236 | 2.45 (0.64, 9.43) |
| | | TT | 0 | 0 | - | - | - |
| IL8 | rs4073 | A | 64.1 | 59.3 | | | Reference |
| | | T | 35.9 | 40.7 | 0.28 | 0.565 | 0.82 (0.45, 1.47) |
| | | AA | 37.5 | 37.6 | | | Reference |
| | | AT | 53.1 | 43.9 | 0.21 | 0.532 | 1.21 (0.66, 2.23) |
| | | TT | 9.4 | 18.5 | 1.31 | 0.164 | 0.51 (0.19, 1.35) |
| IL8 | rs2227307 | T | 65.6 | 64 | | | Reference |
| | | G | 34.4 | 36 | 0.01 | 0.767 | 0.93 (0.51, 1.69) |
| | | TT | 40.6 | 43.4 | | | Reference |
| | | TG | 50.0 | 41.3 | 0.47 | 0.448 | 1.29 (0.71, 2.37) |
| | | GG | 9.4 | 15.3 | 0.39 | 0.421 | 0.65 (0.24, 1.75) |
| IL8 | rs2227306 | C | 81.3 | 77.8 | | | Reference |
| | | T | 18.8 | 22.2 | 0.17 | 0.621 | 0.81 (0.4, 1.65) |
| | | CC | 64.1 | 63 | | | Reference |
| | | CT | 32.8 | 29.6 | 0.01 | 0.764 | 1.09 (0.59, 2.01) |
| | | TT | 3.1 | 7.4 | 0.739 | 0.257 | 0.42 (0.09, 1.90) |
| IL8 | rs2227543 | C | 70.3 | 66.1 | | | Reference |
| | | T | 29.7 | 33.9 | 0.21 | 0.639 | 0.83 (0.45, 1.53) |
| | | CC | 46.9 | 46 | | | Reference |
| | | CT | 45.3 | 40.2 | 0.03 | 0.712 | 1.11 (0.61, 2.01) |
| | | TT | 7.81 | 13.8 | 0.76 | 0.252 | 0.56 (0.2, 1.58) |
| IL10 | rs3024498 | T | 90.6 | 91 | | | Reference |
| | | C | 9.4 | 9 | 0.03 | 0.999 | 1.05 (0.39, 2.78) |
| | | TT | 82.8 | 82.5 | | | Reference |
| | | TC | 15.6 | 16.9 | 0.06 | 0.794 | 0.84 (0.39, 1.82) |
| | | CC | 1.6 | 0.5 | 0 | 0.192 | 2.69 (0.17, 43.71) |

| | | | | | | | |
|--|-----------|----|------|------|-------|-------|--------------------|
| | | G | 59.4 | 58.2 | | | Reference |
| | | A | 40.6 | 41.8 | 0 | 0.867 | 0.95 (0.53, 1.7) |
| | rs1554286 | GG | 37.5 | 35.4 | | | Reference |
| | | GA | 43.8 | 45 | 0.01 | 0.790 | 0.92 (0.49, 1.73) |
| | | AA | 18.8 | 19.6 | 0 | 0.804 | 0.91 (0.41, 2.02) |
| | | C | 57.8 | 56.1 | | | Reference |
| | rs1518111 | T | 42.2 | 43.9 | 0.01 | 0.871 | 0.93 (0.53, 1.65) |
| | | CC | 34.4 | 31.7 | | | Reference |
| | | CT | 45.3 | 48.1 | 0.07 | 0.668 | 0.87 (0.46, 1.65) |
| | | TT | 20.3 | 20.1 | 0 | 0.867 | 0.93 (0.42, 2.07) |
| | | C | 57.8 | 56.1 | | | Reference |
| | rs1518110 | A | 42.2 | 43.9 | 0.01 | 0.883 | 0.93 (0.53, 1.65) |
| | | CC | 34.4 | 31.2 | | | Reference |
| | | CA | 45.3 | 49.2 | 0.14 | 0.746 | 0.84 (0.44, 1.59) |
| | | AA | 20.3 | 19.6 | 0 | 0.897 | 0.94 (0.42, 2.1) |
| | | T | 92.2 | 90.5 | | | Reference |
| | rs3021094 | G | 7.8 | 9.5 | 0.03 | 0.786 | 0.81 (0.29, 2.26) |
| | | TT | 85.9 | 82 | | | Reference |
| | | TG | 12.5 | 17.5 | 0.5 | 0.426 | 0.68 (0.3, 1.57) |
| | | GG | 1.6 | 0.5 | 0.002 | 0.340 | 2.82 (0.17, 45.83) |
| | | G | 54.7 | 54.5 | | | Reference |
| | rs1800872 | T | 45.3 | 45.5 | 0.01 | 0.896 | 0.99 (0.56, 1.75) |
| | | GG | 29.7 | 30.2 | | | Reference |
| | | GT | 50.0 | 48.1 | 0 | 0.783 | 1.06 (0.55, 2.04) |
| | | TT | 20.3 | 21.7 | 0.01 | 0.909 | 0.95 (0.42, 2.14) |
| | | T | 78.1 | 78.3 | | | Reference |
| | rs1800896 | C | 21.9 | 21.7 | 0.02 | 1.000 | 1.01 (0.51, 2.01) |
| | | TT | 60.9 | 60.8 | | | Reference |
| | | TC | 34.4 | 34.9 | 0.01 | 0.977 | 0.98 (0.54, 1.8) |
| | | CC | 4.7 | 4.2 | 0.046 | 0.838 | 1.11 (0.28, 4.38) |
| | | C | 76.6 | 78.3 | | | Reference |
| | rs1800893 | T | 23.4 | 21.7 | 0.01 | 0.760 | 1.11 (0.56, 2.17) |
| | | CC | 57.8 | 60.3 | | | Reference |
| | | CT | 35.9 | 35.4 | 0 | 0.834 | 1.06 (0.58, 1.93) |
| | | TT | 6.3 | 4.2 | 0.111 | 0.523 | 1.54 (0.44, 5.41) |
| | | G | 76.6 | 83.6 | | | Reference |
| | rs6693899 | T | 23.4 | 16.4 | 1.15 | 0.261 | 1.56 (0.78, 3.13) |
| | | GG | 59.4 | 71.4 | | | Reference |
| | | GT | 34.4 | 24.9 | 2.1 | 0.101 | 1.66 (0.89, 3.1) |
| | | TT | 6.3 | 3.7 | 0.537 | 0.272 | 2.03 (0.56, 7.30) |
| | | C | 92.2 | 92.1 | | | Reference |
| | rs6703630 | T | 7.8 | 7.9 | 0.06 | 0.616 | 0.98 (0.34, 2.82) |
| | | CC | 82.8 | 85.2 | | | Reference |

| | | | | | | | |
|--------------|------------|----|-------|------|-------|-------|-------------------|
| | | CT | 17.2 | 14.3 | 0.12 | 0.610 | 1.24 (0.58, 2.66) |
| | | TT | 0 | 0.5 | - | - | - |
| <i>IL12B</i> | rs3212227 | T | 64.1 | 59.8 | | | Reference |
| | | G | 35.9 | 40.2 | 0.21 | 0.557 | 0.83 (0.46, 1.50) |
| | | TT | 39.1 | 36.5 | | | Reference |
| | | TG | 48.4 | 46.6 | 0 | 1.000 | 0.97 (0.53, 1.8) |
| | | GG | 12.5 | 16.9 | 0.35 | 0.513 | 0.69 (0.28, 1.7) |
| | rs3213094 | C | 64.1 | 60.1 | | | Reference |
| | | T | 35.9 | 40.0 | 0.21 | 0.557 | 0.83 (0.46, 1.50) |
| | | CC | 39.1 | 36.5 | | | Reference |
| | | CT | 48.4 | 47.1 | 0 | 1.000 | 0.96 (0.52, 1.78) |
| | | TT | 12.5 | 16.4 | 0.27 | 0.515 | 0.71 (0.29, 1.76) |
| | rs2569254 | C | 89.1 | 85.7 | | | Reference |
| | | T | 10.9 | 14.3 | 0.22 | 0.535 | 0.74 (0.3, 1.78) |
| | | CC | 79.7 | 74.1 | | | Reference |
| | | CT | 17.2 | 23.3 | 0.69 | 0.379 | 0.69 (0.33, 1.43) |
| | | TT | 3.1 | 2.7 | 0.105 | 1.000 | 1.1 (0.21, 5.84) |
| | rs1433048 | A | 87.5 | 91.0 | | | Reference |
| | | G | 12.5 | 9.0 | 0.32 | 0.467 | 1.45 (0.59, 3.53) |
| | | AA | 76.6 | 82.5 | | | Reference |
| | | GA | 21.9 | 16.9 | 0.54 | 0.451 | 1.39 (0.69, 2.82) |
| | | GG | 1.6 | 0.5 | 0 | 0.425 | 3.18 (0.2, 51.85) |
| | rs730691 | T | 48.4 | 53.4 | | | Reference |
| | | C | 51.6 | 46.6 | 0.3 | 0.562 | 1.22 (0.69, 2.16) |
| | | TT | 25.0 | 25.4 | | | Reference |
| | | TC | 45.3 | 57.1 | 0.18 | 0.587 | 0.81 (0.40, 1.62) |
| | | CC | 29.7 | 17.5 | 1.31 | 0.223 | 1.73 (0.78, 3.84) |
| | rs17860508 | C | 90.6 | 89.9 | | | Reference |
| | | T | 9.4 | 10.1 | 0.01 | 1.000 | 0.93 (0.35, 2.43) |
| | | CC | 79.7 | 79.4 | | | Reference |
| | | CT | 20.3 | 20.6 | 0.02 | 1.000 | 0.98 (0.49, 1.98) |
| | | TT | 0.0 | 0.0 | - | - | - |
| | rs6887695 | G | 59.4 | 58.2 | | | Reference |
| | | C | 40.6 | 41.8 | 0 | 0.884 | 0.95 (0.54, 1.7) |
| | | GG | 32.8 | 31.2 | | | Reference |
| | | GC | 51.6 | 53.4 | 0.01 | 0.871 | 0.92 (0.49, 1.73) |
| | | CC | 15.63 | 15.3 | 0.02 | 1 | 0.97 (0.40, 2.32) |

Data in bold type indicates significant differences ($p<0.05$) between cases and controls. Data in bold and italics indicates a trend ($p<0.1$) for a difference between cases and controls. rs id - Reference SNP cluster identification; OR - Odds ratio; CI = confidence interval

Supplementary Table S6. Differences in the frequency of interleukin SNPs for MK only versus SK only.

| Gene | rs ID | Allele / Genotype | Frequency (%) | | X ² value | Corrected p value | OR (95% CI) |
|-------------|------------|-------------------|-----------------|------|----------------------|-------------------|--------------------|
| | | | MK Cases (N=81) | | SK Cases (N=64) | | |
| <i>IL1b</i> | rs1143643 | C | 70.4 | 73.4 | | | Reference |
| | | T | 29.6 | 26.6 | 0.05 | 0.714 | 1.16 (0.56, 2.42) |
| | | CC | 49.4 | 54.7 | | | Reference |
| | | CT | 42.0 | 35.9 | 0.3 | 0.484 | 1.29 (0.64, 2.6) |
| | | TT | 8.6 | 9.4 | 0.07 | 1.000 | 1.02 (0.31, 3.33) |
| | rs1143634 | G | 88.3 | 84.4 | | | Reference |
| | | A | 11.7 | 15.6 | 0.3 | 0.464 | 0.68 (0.26, 1.78) |
| | | GG | 77.8 | 71.9 | | | Reference |
| | | GA | 21.0 | 25.0 | 0.19 | 0.552 | 0.78 (0.36, 1.7) |
| | | AA | 1.2 | 3.1 | 0.064 | 0.799 | 0.37 (0.03, 4.15) |
| | rs1143627 | G | 58.6 | 59.4 | | | Reference |
| | | A | 41.4 | 40.6 | 0 | 1.000 | 1.06 (0.54, 2.06) |
| | | GG | 39.5 | 35.9 | | | Reference |
| | | GA | 38.3 | 46.9 | 0.37 | 0.459 | 0.74 (0.36, 1.55) |
| | | AA | 22.2 | 17.2 | 0.01 | 0.817 | 1.18 (0.47, 2.96) |
| | rs16944 | A | 58.0 | 59.4 | | | Reference |
| | | G | 42.0 | 40.6 | 0 | 1.000 | 1.06 (0.54, 2.06) |
| | | AA | 38.3 | 35.9 | | | Reference |
| | | AG | 39.5 | 46.9 | 0.19 | 0.578 | 0.79 (0.38, 1.65) |
| | | GG | 22.2 | 17.2 | 0.03 | 0.815 | 1.21 (0.48, 3.06) |
| <i>IL6</i> | rs10499563 | T | 81.5 | 79.7 | | | Reference |
| | | C | 18.5 | 20.3 | 0 | 0.834 | 0.89 (0.39, 2.04) |
| | | TT | 67.9 | 62.5 | | | Reference |
| | | TC | 27.2 | 32.8 | 0.310 | 0.579 | 0.76 (0.37, 1.57) |
| | | CC | 4.9 | 4.7 | 0.127 | 0.721 | 0.55 (0.12, 2.57) |
| | rs2069827 | G | 95.1 | 98.4 | | | Reference |
| | | T | 4.9 | 1.6 | 0.419 | 0.517 | 3.27 (0.36, 30.03) |
| | | GG | 90.1 | 96.9 | | | Reference |
| | | GT | 9.9 | 3.1 | 1.595 | 0.206 | 3.4 (0.7, 16.6) |
| | | TT | 0.0 | 0.0 | - | - | - |
| | rs1800797 | G | 86.4 | 89.1 | | | Reference |
| | | A | 13.6 | 10.9 | 0.05 | 0.800 | 1.28 (0.47, 3.51) |
| | | GG | 75.3 | 79.7 | | | Reference |
| | | AG | 21.0 | 17.2 | 0.150 | 0.672 | 1.29 (0.56, 3.01) |
| | | AA | 3.7 | 3.1 | 0.046 | 0.829 | 1.25 (0.20, 7.8) |
| | rs1800795 | G | 87.7 | 89.1 | | | Reference |
| | | C | 12.3 | 10.9 | 0 | 1.000 | 1.15 (0.41, 3.20) |
| | | GG | 79.0 | 81.3 | | | Reference |

| | | | | | | | |
|-------------|-----------|----|-------|------|-------|-------|--------------------|
| <i>IL8</i> | rs2069835 | GC | 17.3 | 15.6 | 0.000 | 0.824 | 1.14 (0.47, 2.77) |
| | | CC | 3.7 | 3.1 | 0.06 | 0.805 | 1.22 (0.2, 7.57) |
| | | T | 92.6 | 96.9 | | | Reference |
| | | C | 7.4 | 3.1 | 0.57 | 0.450 | 2.48 (0.48, 12.73) |
| | | TT | 86.4 | 93.8 | | | Reference |
| | | TC | 12.3 | 4.7 | 1.700 | 0.146 | 2.86 (0.75, 10.86) |
| | | CC | 1.2 | 1.6 | 0.367 | 0.544 | 0.86 (0.05, 14.00) |
| | rs1554606 | G | 82.7 | 82.8 | | | Reference |
| | | T | 17.3 | 17.2 | 0.04 | 1.000 | 1.01 (0.42, 2.4) |
| | | GG | 69.1 | 71.9 | | | Reference |
| | | GT | 25.9 | 20.3 | 0.25 | 0.551 | 1.33 (0.6, 2.94) |
| | | TT | 4.9 | 7.8 | 0.064 | 0.799 | 0.66 (0.17, 2.59) |
| | rs2069861 | C | 100.0 | 96.9 | | | Reference |
| | | T | 0.0 | 3.1 | - | - | - |
| | | CC | 100.0 | 93.8 | | | Reference |
| | | CT | 0.0 | 6.3 | - | - | - |
| | | TT | 0.0 | 0.0 | - | - | - |
| | rs4073 | A | 66.7 | 64.1 | | | Reference |
| | | T | 33.3 | 35.9 | 0.02 | 0.860 | 0.89 (0.45, 1.78) |
| | | AA | 40.7 | 37.5 | | | Reference |
| | | AT | 50.6 | 53.1 | 0.04 | 0.726 | 0.88 (0.44, 1.76) |
| | | TT | 8.6 | 9.4 | 0 | 1.000 | 0.85 (0.25, 2.85) |
| | rs2227307 | T | 67.9 | 65.6 | | | Reference |
| | | G | 32.1 | 34.4 | 0.01 | 0.859 | 0.90 (0.45, 1.81) |
| | | TT | 42.0 | 40.6 | | | Reference |
| | | TG | 51.9 | 50.0 | 0.03 | 1.000 | 1.00 (0.51, 2.00) |
| | | GG | 6.2 | 9.4 | 0.127 | 0.720 | 0.64 (0.18, 2.32) |
| | rs2227306 | C | 79.0 | 81.3 | | | Reference |
| | | T | 21.0 | 18.8 | 0.02 | 0.835 | 1.15 (0.51, 2.63) |
| | | CC | 60.5 | 64.1 | | | Reference |
| | | CT | 35.8 | 32.8 | 0.05 | 0.725 | 1.16 (0.58, 2.32) |
| | | TT | 3.7 | 3.1 | 0.047 | 0.826 | 1.26 (0.2, 7.88) |
| | rs2227543 | C | 70.4 | 70.3 | | | Reference |
| | | T | 29.6 | 29.7 | 0.03 | 1.000 | 1.00 (0.49, 2.04) |
| | | CC | 46.9 | 46.9 | | | Reference |
| | | CT | 46.9 | 45.3 | 0.01 | 1.000 | 1.04 (0.52, 2.04) |
| | | TT | 6.2 | 7.8 | 0 | 0.993 | 0.79 (0.21, 2.98) |
| <i>IL10</i> | rs3024498 | T | 90.1 | 90.6 | | | Reference |
| | | C | 9.9 | 9.4 | 0.03 | 1.000 | 1.06 (0.35, 3.23) |
| | | TT | 82.7 | 82.8 | | | Reference |
| | | TC | 14.8 | 15.6 | 0.01 | 0.976 | 0.95 (0.38, 2.37) |
| | | CC | 2.5 | 1.6 | 0.046 | 0.829 | 1.58 (0.14, 17.92) |

| | | | | | | | |
|--|-----------|----|------|------|-------|-------|--------------------|
| | rs1554286 | G | 54.3 | 59.4 | | | Reference |
| | | A | 45.7 | 40.6 | 0.19 | 0.613 | 1.23 (0.63, 2.39) |
| | | GG | 32.1 | 37.5 | | | Reference |
| | | GA | 43.2 | 43.8 | 0.03 | 0.849 | 1.15 (0.55, 2.43) |
| | | AA | 24.7 | 18.8 | 0.5 | 0.372 | 1.54 (0.62, 3.81) |
| | rs1518111 | C | 49.4 | 57.8 | | | Reference |
| | | T | 50.6 | 42.2 | 0.71 | 0.321 | 1.41 (0.73, 2.72) |
| | | CC | 29.6 | 34.4 | | | Reference |
| | | CT | 38.3 | 45.3 | 0.02 | 1.000 | 0.98 (0.45, 2.11) |
| | | TT | 32.1 | 20.3 | 1.28 | 0.192 | 1.83 (0.76, 4.43) |
| | rs1518110 | C | 49.4 | 57.8 | | | Reference |
| | | A | 50.6 | 42.2 | 0.71 | 0.321 | 1.41 (0.73, 2.72) |
| | | CC | 27.2 | 34.4 | | | Reference |
| | | CA | 43.2 | 45.3 | 0.08 | 0.696 | 1.21 (0.56, 2.60) |
| | | AA | 29.6 | 20.3 | 1.25 | 0.260 | 1.85 (0.75, 4.53) |
| | rs3021094 | T | 87.7 | 92.2 | | | Reference |
| | | G | 12.3 | 7.8 | 0.38 | 0.422 | 1.66 (0.54, 5.13) |
| | | TT | 75.3 | 85.9 | | | Reference |
| | | TG | 23.5 | 12.5 | 2.14 | 0.131 | 2.14 (0.87, 5.28) |
| | | GG | 1.2 | 1.6 | 0.411 | 0.521 | 0.90 (0.06, 14.76) |
| | rs1800872 | G | 46.9 | 54.7 | | | Reference |
| | | T | 53.1 | 45.3 | 2.28 | 0.121 | 1.79 (0.91, 3.54) |
| | | GG | 25.9 | 29.7 | | | Reference |
| | | GT | 42.0 | 50.0 | 0.01 | 1.000 | 0.96 (0.44, 2.11) |
| | | TT | 32.1 | 20.3 | 1.11 | 0.253 | 1.81 (0.73, 4.5) |
| | rs1800896 | T | 76.5 | 78.1 | | | Reference |
| | | C | 23.5 | 21.9 | 0 | 0.844 | 1.1 (0.5, 2.4) |
| | | TT | 59.3 | 60.9 | | | Reference |
| | | TC | 34.6 | 34.4 | 0.01 | 1.000 | 1.03 (0.51, 2.08) |
| | | CC | 6.2 | 4.7 | 0 | 0.978 | 1.35 (0.30, 6.02) |
| | rs1800893 | C | 75.3 | 76.6 | | | Reference |
| | | T | 24.7 | 23.4 | 0 | 1.000 | 1.07 (0.5, 2.31) |
| | | CC | 56.8 | 57.8 | | | Reference |
| | | CT | 37.0 | 35.9 | 0 | 1.000 | 1.05 (0.52, 2.10) |
| | | TT | 6.2 | 6.3 | 0.119 | 0.729 | 1.01 (0.25, 4.01) |
| | rs6693899 | G | 80.2 | 76.6 | | | Reference |
| | | T | 19.8 | 23.4 | 0.11 | 0.684 | 0.80 (0.36, 1.78) |
| | | GG | 67.9 | 59.4 | | | Reference |
| | | GT | 24.7 | 34.4 | 1.12 | 0.262 | 0.63 (0.30, 1.31) |
| | | TT | 7.4 | 6.3 | 0.081 | 0.774 | 1.04 (0.27, 3.92) |
| | rs6703630 | C | 92.6 | 92.2 | | | Reference |
| | | T | 7.4 | 7.8 | 0.05 | 0.822 | 0.94 (0.28, 3.25) |
| | | CC | 86.4 | 82.8 | | | Reference |

| | | | | | | | |
|--------------|------------|----|------|------|-------|-------|--------------------|
| | | CT | 12.3 | 17.2 | 0.31 | 0.481 | 0.69 (0.27, 1.74) |
| | | TT | 1.2 | 0.0 | - | - | - |
| <i>IL12B</i> | rs3212227 | T | 56.8 | 64.1 | | | Reference |
| | | G | 43.2 | 35.9 | 0.51 | 0.398 | 1.36 (0.69, 2.66) |
| | | TT | 35.8 | 39.1 | | | Reference |
| | | TG | 40.7 | 48.4 | 0 | 0.854 | 0.92 (0.44, 1.9) |
| | | GG | 23.5 | 12.5 | 1.44 | 0.230 | 2.05 (0.77, 5.48) |
| | rs3213094 | C | 56.8 | 64.1 | | | Reference |
| | | T | 43.2 | 35.9 | 0.51 | 0.398 | 1.36 (0.69, 2.66) |
| | | CC | 35.8 | 39.1 | | | Reference |
| | | CT | 42.0 | 48.4 | 0 | 1.000 | 0.95 (0.46, 1.95) |
| | | TT | 22.2 | 12.5 | 1.16 | 0.229 | 1.94 (0.72, 5.22) |
| | rs2569254 | C | 91.4 | 89.1 | | | Reference |
| | | T | 8.6 | 10.9 | 0.03 | 0.778 | 0.77 (0.26, 2.32) |
| | | CC | 85.2 | 79.7 | | | Reference |
| | | CT | 12.3 | 17.2 | 0.36 | 0.477 | 0.67 (0.27, 1.70) |
| | | TT | 2.5 | 3.1 | 0.046 | 0.820 | 0.74 (0.1, 5.42) |
| | rs1433048 | A | 87.7 | 87.5 | | | Reference |
| | | G | 12.3 | 12.5 | 0.05 | 1.000 | 0.99 (0.36, 2.66) |
| | | AA | 77.8 | 76.6 | | | Reference |
| | | GA | 19.8 | 21.9 | 0.01 | 0.837 | 0.89 (0.40, 2.00) |
| | | GG | 2.5 | 1.6 | 0.053 | 0.817 | 1.56 (0.14, 17.66) |
| | rs730691 | T | 53.1 | 48.4 | | | Reference |
| | | C | 46.9 | 51.6 | 0.15 | 0.618 | 0.83 (0.43, 1.60) |
| | | TT | 32.1 | 25.0 | | | Reference |
| | | TC | 40.7 | 45.3 | 0.46 | 0.424 | 0.70 (0.32, 1.56) |
| | | CC | 27.2 | 29.7 | 0.29 | 0.508 | 0.71 (0.3, 1.71) |
| | rs17860508 | C | 90.1 | 90.6 | | | Reference |
| | | T | 9.9 | 9.4 | 0.03 | 1.000 | 1.06 (0.35, 3.23) |
| | | CC | 80.2 | 79.7 | | | Reference |
| | | CT | 19.8 | 20.3 | 0.02 | 1.000 | 0.97 (0.43, 2.19) |
| | | TT | 0.0 | 0.0 | - | - | - |
| | rs6887695 | G | 60.5 | 59.4 | | | Reference |
| | | C | 39.5 | 40.6 | 0 | 1.000 | 0.96 (0.49, 1.86) |
| | | GG | 35.8 | 32.8 | | | Reference |
| | | GC | 48.1 | 51.6 | 0.05 | 0.713 | 0.86 (0.41, 1.77) |
| | | CC | 16.0 | 15.6 | 0.02 | 1.000 | 0.94 (0.35, 2.55) |

rs id - Reference SNP cluster identification; OR - Odds ratio; CI = confidence interval