**Supplemental Table 2.** Summary of loci associated with osteolysis susceptibility at p < 5 x 10-6 in 317 patients with osteolysis and 573 control patients in the UK cohort

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Chromosome:position | rsID | Effect allele | Noneffect allele | Effect allele frequency cases | Effect allele frequency controls | Odds ratio (95% CI) | p value |
| 1:193720225\* | rs17741308 | A | G | 0.06 | 0.12 | 0.43 (0.29-0.64) | 1.48E-06 |
| 1:193745442 | rs113285105 | T | C | 0.06 | 0.12 | 0.44 (0.30-0.64) | 1.78E-06 |
| 1:208542670 | rs12130926 | C | T | 0.30 | 0.41 | 0.62 (0.50-0.76) | 9.93E-07 |
| 1:208543183 | rs1499589 | T | A | 0.30 | 0.41 | 0.62 (0.50-0.76) | 9.05E-07 |
| 1:208543562 | rs10779476 | T | C | 0.30 | 0.41 | 0.62 (0.50-0.76) | 9.93E-07 |
| 1:208546405 | rs1499574 | T | A | 0.30 | 0.41 | 0.61 (0.50-0.75) | 4.80E-07 |
| 1:208551773 | rs11119057 | A | G | 0.30 | 0.41 | 0.61 (0.49-0.74) | 4.45E-07 |
| 1:208552368 | rs12138270 | A | G | 0.28 | 0.39 | 0.59 (0.48-0.73) | 6.45-07 |
| 1:208552637\* | rs12135813 | C | T | 0.30 | 0.41 | 0.61 (0.49-0.74) | 4.34E-07 |
| 1:208552933 | rs11119058 | A | G | 0.38 | 0.49 | 0.63 (0.52-0.77) | 4.79E-06 |
| 1:208553098 | rs11119059 | T | C | 0.30 | 0.41 | 0.61 (0.49-0.75) | 4.35E-07 |
| 1:7091845\* | rs2412213 | A | C | 0.65 | 0.56 | 1.48 (1.21-1.81) | 3.79E-06 |
| 11:128730876\* | rs12795437 | C | G | 0.05 | 0.10 | 0.49 (0.33-0.73) | 3.21E-06 |
| 11:128733314 | rs11600347 | A | C | 0.05 | 0.10 | 0.49 (0.33-0.74) | 3.52E-06 |
| 11:128740171 | rs12797340 | A | G | 0.05 | 0.10 | 0.50 (0.33-0.74) | 3.45E-06 |
| 12:125519677 | rs7973861 | C | A | 0.19 | 0.11 | 1.83 (1.40-2.39) | 4.74E-06 |
| 12:125527184 | rs71458885 | A | G | 0.19 | 0.12 | 1.84 1.41-2.41) | 1.38E-06 |
| 12:125527918\* | rs59699850 | T | C | 0.19 | 0.12 | 1.84 (1.41-2.41) | 1.36E-06 |
| 12:125528431 | rs7309164 | T | C | 0.20 | 0.12 | 1.83 (1.40-2.39) | 1.93E-06 |
| 12:125533664 | rs35742876 | A | C | 0.19 | 0.12 | 1.79 (1.37-2.34) | 3.30E-06 |
| 12:125537056 | rs71458888 | A | G | 0.19 | 0.12 | 1.79 (1.37-2.34) | 4.77E-06 |
| 13:23742428\* | rs200711741 | T | A | 0.92 | 0.87 | 1.84 (1.31-2.59) | 3.27E-06 |
| 13:23742440 | rs537978 | T | A | 0.92 | 0.87 | 1.82 (1.30-2.56) | 4.37E-06 |
| 20:18375581 | rs4361192 | C | T | 0.14 | 0.07 | 2.12 (1.54-2.92) | 4.06E-06 |
| 20:18375936 | rs34324874 | C | G | 0.14 | 0.07 | 2.11 (1.53-2.90) | 3.99E-06 |
| 20:18377897 | rs6132050 | G | A | 0.14 | 0.07 | 2.12 (1.54-2.92) | 4.05E-06 |
| 20:18378089 | rs6132051 | A | G | 0.14 | 0.07 | 2.12 (1.54-2.91) | 4.07E-06 |
| 20:18382322 | rs11698500 | A | G | 0.14 | 0.07 | 2.12 (1.54-20.1) | 4.09E-06 |
| 20:18383806 | rs60269515 | C | G | 0.14 | 0.07 | 2.12 (1.54-2.92) | 4.05E-06 |
| 20:18384846 | rs11699716 | C | G | 0.14 | 0.07 | 2.12 (1.54-2.92) | 4.05E-06 |
| 20:18385832 | rs13045092 | G | C | 0.14 | 0.07 | 2.12 (1.54-2.92) | 4.05E-06 |
| 20:18388837 | rs35050571 | A | G | 0.14 | 0.07 | 2.12 (1.54-2.91) | 4.28E-06 |
| 20:18390980 | rs6132057 | G | A | 0.14 | 0.07 | 2.15 (1.56-2.96) | 3.53E-06 |
| 20:18406679 | rs6132059 | T | C | 0.14 | 0.07 | 2.14 (1.55-2.94) | 3.58E-06 |
| 20:18407370 | rs3818216 | A | G | 0.14 | 0.07 | 2.09 (1.55-2.88) | 4.72E-06 |
| 20:18408978 | rs57855732 | T | G | 0.14 | 0.07 | 2.09 (1.52-2.88) | 4.62E-06 |
| 20:18419674\* | rs11698454 | G | A | 0.14 | 0.07 | 2.14 (1.55-2.94) | 3.16E-06 |
| 20:18425360 | rs6136379 | C | T | 0.14 | 0.07 | 2.08 (1.51-2.86) | 4.63E-06 |
| 20:18425735 | rs6136380 | A | G | 0.14 | 0.07 | 2.12 (1.54-2.92) | 3.57E-06 |
| 20:18426439 | rs6136381 | T | C | 0.14 | 0.07 | 2.12 (1.54-2.92) | 3.63E-06 |
| 3:150602978 | rs7649543 | C | T | 0.03 | 0.07 | 0.34 (0.20-0.58) | 4.18E-06 |
| 3:150603085\* | rs893832379 | C | T | 0.03 | 0.07 | 0.34 (0.20-0.58) | 4.04E-06 |
| 4:116066343\* | rs74501616 | T | G | 0.03 | 0.07 | 0.41 (0.25-0.68) | 2.82E-06 |
| 5:110628864\* | rs306105 | C | A | 0.88 | 0.93 | 0.50 (0.36-0.70) | 3.36E-06 |
| 8:17742072 | rs403732 | G | T | 0.70 | 0.78 | 0.65 (0.53-0.81) | 2.57E-06 |
| 8:17743256 | rs369898 | C | G | 0.70 | 0.78 | 0.65 (0.53-0.81) | 2.72E-06 |
| 8:17744768 | rs693812 | G | A | 0.70 | 0.78 | 0.66 (0.53-0.82) | 3.42E-06 |
| 8:17745566 | rs419910 | G | A | 0.70 | 0.78 | 0.66 (0.53-0.82) | 4.59E-06 |
| 8:17745880 | rs437266 | C | A | 0.70 | 0.78 | 0.66 (0.53-0.82) | 4.75E-06 |
| 8:17747717 | rs401153 | G | A | 0.68 | 0.76 | 0.65 (0.52-0.81) | 4.16E-06 |
| 8:17750927 | rs426535 | G | T | 0.68 | 0.77 | 0.65 (0.52-0.82) | 4.07E-06 |
| 8:17751570 | rs1038230537 | A | T | 0.68 | 0.76 | 0.64 (0.52-0.80) | 3.82E-06 |
| 8:17752059 | rs7007168 | C | T | 0.67 | 0.76 | 0.65 (0.52-0.80) | 4.98E-06 |
| 8:17752106 | rs6983591 | G | C | 0.67 | 0.76 | 0.64 (0.52-0.80) | 3.55E-06 |
| 8:17752166 | rs6982482 | A | G | 0.67 | 0.76 | 0.65 (0.52-0.80) | 4.95E-06 |
| 8:17753657 | rs500282 | A | G | 0.68 | 0.77 | 0.64 (0.52-0.80) | 3.07E-06 |
| 8:17753873 | rs3896063 | T | C | 0.68 | 0.77 | 0.64 0.52-0.80) | 3.06E-06 |
| 8:17756229 | rs12543739 | T | C | 0.63 | 0.73 | 0.65 (0.53-0.80) | 3.32E-06 |
| 8:17759756 | rs13264911 | T | C | 0.63 | 0.73 | 0.65 (0.53-0.80) | 2.35E-06 |
| 8:17760348\* | rs407833 | C | T | 0.69 | 0.78 | 0.64 (0.51-0.79) | 1.72E-06 |
| 8:17760754 | rs28603021 | T | C | 0.63 | 0.73 | 0.65 (0.52-0.80) | 2.04E-06 |

\*These loci indicate independent signals; rsID = reference single nucleotide polymorphism cluster identifier; CI = confidence interval.