**ONLINE REPOSITORY**

**Atopic dermatitis is associated with an increased risk for rheumatoid arthritis and inflammatory bowel disease, and a decreased risk for type-1 diabetes**

Table E1. Association of known Crohn’s Disease SNPs (GWASCatalog 2014-10) with Atopic Dermatitis in Atopic Dermatitis GWAS cohorts.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | Atopic Dermatitis | | | Crohn’s Disease | | |
| SNP | CHR | POS | Reported Gene | EA/OA | OR (95% CI) | P-value | RA | OR | Effect |
| rs4656940 | 1 | 160830268 | CD244,ITLN1 | G/A | 1.121 (1.031-1.22) | 0.0078 | A | 1.15 | opposing |
| rs2058660 | 2 | 103054449 | IL18RAP,IL12RL2, IL18R1,IL1RL1 | C/T | 1.191 (1.104-1.284) | 6.56E-06 | C | 1.19 | same |
| rs11742570 | 5 | 40410584 | PTGER4 | T/C | 1.076 (1.004-1.154) | 0.0384 | C | 1.33 | opposing |
| rs1992660 | 5 | 40415067 | PTGER4 | G/A | 1.077 (1.005-1.155) | 0.0354 | G | 1.42 | same |
| rs1373692 | 5 | 40431183 | Intergenic | T/G | 1.08 (1.007-1.157) | 0.0304 | T | 1.46 | same |
| rs9292777 | 5 | 40437948 | PTGER4 | C/T | 1.079 (1.007-1.157) | 0.0307 | T | 1.34 | opposing |
| rs2188962 | 5 | 131770805 | IBD5 | T/C | 0.909 (0.848-0.974) | 0.0067 | T | 1.25 | opposing |
| rs12521868 | 5 | 131784393 | SLC22A4,SLC22A5, IRF1,IL3 | T/G | 0.905 (0.844-0.97) | 0.0047 | T | 1.23 | opposing |
| rs11167764 | 5 | 141479065 | NDFIP1 | T/G | 0.878 (0.807-0.956) | 0.0027 | G | 1.06 | same |
| rs3094188 | 6 | 31142245 | PSORS1C3 | C/A | 1.083 (1.011-1.161) | 0.0236 | C | 1.61 | same |
| rs9348876 | 6 | 31575276 | AIF1 | T/C | 0.756 (0.65-0.88) | 2.85E-04 | T | 1.41 | opposing |
| rs1847472 | 6 | 90973159 | BACH2 | T/G | 0.908 (0.844-0.976) | 0.0088 | G | 1.07 | same |
| rs212388 | 6 | 159490436 | TAGAP | C/T | 1.086 (1.013-1.164) | 0.0202 | C | 1.1 | same |
| rs415890 | 6 | 167406633 | CCR6 | C/G | 1.094 (1.007-1.188) | 0.0336 | C | 1.17 | same |
| rs864745 | 7 | 28180556 | CREB5,JAZF1 | G/A | 0.926 (0.866-0.991) | 0.0270 | A | 1.09 | same |
| rs12722489 | 10 | 6102012 | IL2RA | A/G | 0.887 (0.806-0.975) | 0.0127 | G | 1.11 | same |
| rs10995271 | 10 | 64438486 | ZNF365 | C/G | 0.922 (0.86-0.988) | 0.0206 | C | 1.25 | opposing |
| rs7927894 | 11 | 76301316 | C11orf30 | T/C | 1.154 (1.076-1.236) | 5.10E-05 | T | 1.16 | same |
| rs7927997 | 11 | 76301375 | C11orf30 | T/C | 1.153 (1.076-1.236) | 5.14E-05 | T | 1.17 | same |
| rs4902642 | 14 | 69210199 | ZFP36L1 | T/C | 1.08 (1.009-1.156) | 0.0267 | C | 1.07 | opposing |
| rs5743289 | 16 | 50756774 | NOD2, CARD15 | T/C | 1.111 (1.02-1.209) | 0.0158 | T | 1.67 | same |
| rs2872507 | 17 | 38040763 | GSMDL,ZPBP2, ORMDL3,IKZF3 | A/G | 0.917 (0.856-0.981) | 0.0121 | A | 1.14 | opposing |
| rs9891119 | 17 | 40507980 | STAT3 | C/A | 1.153 (1.075-1.237) | 6.63E-05 | A | 1.37 | opposing |
| rs744166 | 17 | 40514201 | STAT3 | C/T | 1.11 (1.037-1.189) | 0.0028 | T | 1.18 | opposing |
| rs11871801 | 17 | 40570772 | MLX,STAT3 | A/C | 1.109 (1.007-1.22) | 0.0349 | A | 1.15 | same |
| rs740495 | 19 | 1124835 | GPX4,SBNO2 | A/G | 1.172 (1.033-1.331) | 0.0140 | G | 1.16 | opposing |
| rs281379 | 19 | 49214274 | FUT2,RASIP1 | A/G | 0.933 (0.872-0.999) | 0.0475 | A | 1.07 | opposing |
| rs4809330 | 20 | 62349586 | RTEL1,TNFRS-F6B,SLC2A4RG | T/C | 0.812 (0.753-0.876) | 7.53E-08 | C | 1.12 | same |
| rs2797685 | 1 | 7879063 | VAMP3 | T/C | 0.925 (0.845-1.012) | 0.0879 | T | 1.05 | opposing |
| rs7667 | 1 | 19718824 | CAPZB | A/G | 0.968 (0.889-1.054) | 0.4601 | ? | 1.11 |  |
| rs7551188 | 1 | 25273200 | RUNX3 | C/T | 1.065 (0.995-1.14) | 0.0679 | T | 1.18 | opposing |
| rs11805303 | 1 | 67675516 | IL23R | T/C | 1 (0.927-1.079) | 0.9990 | T | 1.39 | same |
| rs7517847 | 1 | 67681669 | IL23R | G/T | 1.021 (0.953-1.093) | 0.5574 | ? | NA |  |
| rs11465804 | 1 | 67702526 | IL23R | G/T | 1.104 (0.961-1.269) | 0.1629 | T | 2.5 | opposing |
| rs11209026 | 1 | 67705958 | IL23R,IL12RB2,C1orf141, SERBP1,SLC35D1 | A/G | 1.073 (0.938-1.228) | 0.3037 | ? | 2.92 |  |
| rs17391694 | 1 | 78623626 | Intergenic | A/G | 0.927 (0.832-1.034) | 0.1737 | G | 1.13 | same |
| rs6679677 | 1 | 114303808 | PTPN22,DCLRE1B | A/C | 0.916 (0.819-1.024) | 0.1241 | C | 1.2 | same |
| rs2476601 | 1 | 114377568 | PTPN22 | A/G | 0.917 (0.82-1.026) | 0.1287 | G | 1.31 | same |
| rs3897478 | 1 | 120451190 | ADAM30 | T/C | 0.942 (0.821-1.08) | 0.3934 | T | 1.16 | opposing |
| rs2274910 | 1 | 160852046 | ITLN1 | A/G | 1.023 (0.952-1.1) | 0.5299 | G | 1.14 | opposing |
| rs7517810 | 1 | 172853460 | TNFSF18,TNFSF4,FASLG | T/C | 0.976 (0.9-1.06) | 0.5688 | T | 1.22 | opposing |
| rs9286879 | 1 | 172862234 | FASLG,TNFSF18 | A/G | 1.056 (0.958-1.164) | 0.2736 | G | 1.19 | opposing |
| rs12035082 | 1 | 172898377 | Intergenic | C/T | 0.989 (0.923-1.06) | 0.7577 | ? | 1.14 |  |
| rs10801047 | 1 | 191559356 | Intergenic | A/T | 1.092 (0.965-1.236) | 0.1622 | ? | 1.47 |  |
| rs1998598 | 1 | 197727642 | DENND1B | C/T | 0.965 (0.896-1.039) | 0.3456 | C | 1.04 | opposing |
| rs7554511 | 1 | 200877562 | C1orf106,KIF21B | A/C | 1.013 (0.939-1.093) | 0.7367 | C | 1.14 | opposing |
| rs11584383 | 1 | 200935866 | Intergenic | C/T | 1.01 (0.937-1.088) | 0.8020 | T | 1.18 | opposing |
| rs3024505 | 1 | 206939904 | IL10,IL19 | T/C | 1.026 (0.937-1.124) | 0.5759 | T | 1.12 | same |
| rs11894081 | 2 | 5664008 | SOX11 | T/G | 0.975 (0.886-1.074) | 0.6075 | T | 1.22 | opposing |
| rs13428812 | 2 | 25492467 | DNMT3A | G/A | 0.971 (0.903-1.045) | 0.4344 | G | 1.06 | opposing |
| rs1728918 | 2 | 27635463 | UCN | A/G | 0.97 (0.839-1.121) | 0.6786 | A | 1.12 | opposing |
| rs780093 | 2 | 27742603 | GCKR | T/C | 0.962 (0.885-1.046) | 0.3630 | T | 1.15 | opposing |
| rs10495903 | 2 | 43806918 | THADA | T/C | 0.967 (0.876-1.067) | 0.5027 | T | 1.14 | opposing |
| rs13003464 | 2 | 61186829 | PUS10,PEX13, REL,KIAA1841, C2orf74,PAPOLG,USP34 | C/T | 1.026 (0.958-1.099) | 0.4612 | C | 1.05 | same |
| rs10188217 | 2 | 61217542 | PUS10 | T/C | 0.99 (0.925-1.06) | 0.7766 | C | NA | same |
| rs10181042 | 2 | 61224259 | C2orf74,REL | A/G | 1.025 (0.957-1.097) | 0.4860 | A | 1.14 | same |
| rs10865331 | 2 | 62551472 | Intergenic | A/G | 1.048 (0.977-1.124) | 0.1899 | A | 1.1 | same |
| rs6545946 | 2 | 62713533 | TMEM17,EHBP1,CPAMD8, AK3 | T/C | 0.994 (0.898-1.101) | 0.9127 | C | 1.16 | same |
| rs6738825 | 2 | 198896895 | PLCL1 | T/C | 1.004 (0.938-1.074) | 0.9132 | T | 1.06 | same |
| rs6716753 | 2 | 231097129 | SP140 | G/A | 0.942 (0.863-1.028) | 0.1793 | G | 1.13 | opposing |
| rs7423615 | 2 | 231116874 | SP140 | T/C | 1.108 (0.931-1.318) | 0.2493 | T | 1.12 | same |
| rs10210302 | 2 | 234158839 | ATG16L1 | C/T | 1.009 (0.943-1.08) | 0.7881 | T | 1.19 | opposing |
| rs12994997 | 2 | 234173503 | ATG16L1,INPP5D | C/T | 1.007 (0.941-1.078) | 0.8437 | T | 1.23 | opposing |
| rs3828309 | 2 | 234180410 | ATG16L1 | T/C | 1.008 (0.942-1.078) | 0.8251 | C | 1.25 | opposing |
| rs2241880 | 2 | 234183368 | ATG16L1,SAG,DGKD, INPP5D,USP40 | T/C | 1.009 (0.943-1.08) | 0.8015 | C | 1.45 | opposing |
| rs3792109 | 2 | 234184417 | ATG16L1 | G/A | 1.009 (0.943-1.08) | 0.7910 | A | 1.34 | opposing |
| rs13073817 | 3 | 18706858 | intergenic | A/G | 1.022 (0.952-1.098) | 0.5485 | A | 1.08 | same |
| rs9858542 | 3 | 49701983 | BSN, MST1 | T/C | 0.971 (0.901-1.047) | 0.4472 | T | 1.09 | opposing |
| rs3197999 | 3 | 49721532 | MST1,GPX1,BSN | T/C | 0.968 (0.897-1.044) | 0.4009 | T | 1.2 | opposing |
| rs1386478 | 3 | 113680951 | ZDHHC23 | G/A | 1.035 (0.961-1.115) | 0.3597 | A | 1.12 | opposing |
| rs6856616 | 4 | 38325036 | TBC1D1,KLF3 | C/T | 1.005 (0.878-1.152) | 0.9397 | C | 1.43 | same |
| rs1487630 | 4 | 38335823 | TBC1D1 | T/C | 1.032 (0.897-1.188) | 0.6579 | T | 1.33 | same |
| rs6837335 | 4 | 48363983 | TXK,TEC,SLC10A4 | A/G | 1.03 (0.945-1.124) | 0.4991 | G | 1.09 | opposing |
| rs13126505 | 4 | 102865304 | Intergenic | A/G | 1.086 (0.938-1.257) | 0.2692 | A | 1.17 | same |
| rs4613763 | 5 | 40392728 | PTGER4 | C/T | 0.921 (0.834-1.017) | 0.1031 | C | 1.32 | opposing |
| rs17234657 | 5 | 40401509 | Intergenic | C/A | 0.924 (0.837-1.019) | 0.1142 | C | 1.54 | opposing |
| rs10065637 | 5 | 55438851 | IL6ST,IL31RA | T/C | 0.941 (0.865-1.023) | 0.1550 | C | 1.12 | same |
| rs7702331 | 5 | 72551134 | intergenic | A/G | 0.967 (0.887-1.054) | 0.4485 | A | 1.12 | opposing |
| rs2549794 | 5 | 96244549 | ERAP2,LRAP | T/C | 1.037 (0.953-1.128) | 0.3960 | C | 1.05 | opposing |
| rs7705924 | 5 | 101946798 | SLCO6A1 | A/G | 0.936 (0.76-1.153) | 0.5342 | G | 1.48 | same |
| rs6596075 | 5 | 131742228 | Intergenic | G/C | 0.928 (0.845-1.019) | 0.1191 | C | 1.55 | same |
| rs13361189 | 5 | 150223387 | IRGM | G/A | 0.967 (0.85-1.099) | 0.6066 | ? | 1.38 |  |
| rs1000113 | 5 | 150240076 | IRGM | T/C | 0.99 (0.867-1.13) | 0.8777 | T | 1.54 | opposing |
| rs11747270 | 5 | 150258867 | IRGM | G/A | 0.979 (0.86-1.114) | 0.7477 | G | 1.33 | opposing |
| rs7714584 | 5 | 150270420 | IRGM | C/T | 0.989 (0.87-1.124) | 0.8693 | C | 1.37 | opposing |
| rs6556412 | 5 | 158787385 | IL12B | A/G | 1.037 (0.964-1.115) | 0.3319 | A | 1.18 | same |
| rs10045431 | 5 | 158814533 | IL12B | A/C | 0.967 (0.88-1.062) | 0.4784 | C | 1.11 | same |
| rs6887695 | 5 | 158822645 | IL12B | C/G | 1.028 (0.954-1.107) | 0.4684 | ? | 1.26 |  |
| rs359457 | 5 | 173279842 | CPEB4 | G/A | 1.023 (0.956-1.095) | 0.5122 | A | 1.08 | opposing |
| rs17695092 | 5 | 173337853 | CPEB4 | T/G | 0.93 (0.804-1.075) | 0.3263 | T | 1.1 | opposing |
| rs17309827 | 6 | 3433318 | intergenic | C/A | 0.961 (0.896-1.03) | 0.2600 | A | 1.1 | same |
| rs6908425 | 6 | 20728731 | CDKAL1 | A/G | 0.979 (0.901-1.064) | 0.6210 | G | 1.21 | same |
| rs12663356 | 6 | 21430728 | Intergenic | T/C | 1.022 (0.955-1.094) | 0.5257 | C | 1.1 | opposing |
| rs9258260 | 6 | 29723161 | HLA-F,MOG,HLA-G, GABBR1, HLA-H, UBD,HLA-A | A/G | 1.008 (0.891-1.141) | 0.8945 | A | 1.45 | same |
| rs9264942 | 6 | 31274380 | HLA-C,PSORS1C1, NFKBIL1,MICB | C/T | 1.014 (0.944-1.088) | 0.7094 | C | 1.15 | same |
| rs1799964 | 6 | 31542308 | LTA,HLA-DQA2, TNF,LST1,LTB | C/T | 1.021 (0.94-1.109) | 0.6195 | C | 1.19 | same |
| rs9267911 | 6 | 32205110 | PBX2,NOTCH4 | G/A | 1.014 (0.948-1.086) | 0.6781 | A | 1.5 | opposing |
| rs10947261 | 6 | 32373232 | HLA-DRB5,HLA-DQA1, HLA-DRB1,HLA-DRA | A/C | 1.012 (0.9-1.137) | 0.8402 | A | 1.36 | same |
| rs9271366 | 6 | 32586854 | HLA-DRB5,HLA-DQA1, HLA-DRB1,HLA-DRA | C/T | 0.978 (0.888-1.076) | 0.6484 | T | 1.66 | same |
| rs9469220 | 6 | 32658310 |  | G/A | 0.963 (0.9-1.031) | 0.2790 | A | 1.14 | same |
| rs751728 | 6 | 33764033 | ITPR3,MIF1,IP6K3, LEMD2,MLN | T/C | 1.024 (0.94-1.115) | 0.5916 | T | 1.32 | same |
| rs6568421 | 6 | 106435025 | PRDM1 | A/G | 1.047 (0.902-1.216) | 0.5442 | G | 1.13 | opposing |
| rs7746082 | 6 | 106435269 | Unknown | G/C | 0.973 (0.903-1.048) | 0.4700 | C | 1.17 | same |
| rs9491697 | 6 | 127456122 | Intergenic | A/G | 1.004 (0.923-1.091) | 0.9355 | G | 1.08 | opposing |
| rs13204742 | 6 | 128245765 | Intergenic | A/C | 1.071 (0.967-1.185) | 0.1871 | A | 1.17 | same |
| rs2149085 | 6 | 167371110 | RNASET2,FGFR1OP, CCR6,MIR3939 | C/T | 0.985 (0.92-1.055) | 0.6685 | T | 1.34 | same |
| rs2301436 | 6 | 167437988 | CCR6,FGFR10P,RNASE2 | T/C | 0.968 (0.905-1.036) | 0.3545 | T | 1.21 | opposing |
| rs10486483 | 7 | 26892440 | Intergenic | T/C | 1.034 (0.955-1.12) | 0.4090 | A | 1.09 | opposing |
| rs1456893 | 7 | 50269672 | Intergenic | G/A | 1.062 (0.986-1.144) | 0.1111 | A | 1.2 | opposing |
| rs1456896 | 7 | 50304461 | IKZF1,ZPBP,FIGNL1 | G/A | 1.061 (0.986-1.142) | 0.1126 | A | 1.14 | opposing |
| rs11978472 | 7 | 81839553 | CACNA2D1 | A/C | 1.028 (0.945-1.117) | 0.5256 | ? | 2 |  |
| rs1869839 | 7 | 114357543 | FOXP2 | A/G | 1.047 (0.962-1.139) | 0.2916 | ? | 1.2 |  |
| rs7807268 | 7 | 148258048 |  | C/G | 1.017 (0.93-1.111) | 0.7154 | G | 1.38 | opposing |
| rs12677663 | 8 | 74007347 | C8orf84,TERF1,RPL7, RDH10,KCNB2 | T/G | 0.975 (0.894-1.063) | 0.5596 | T | 1.15 | opposing |
| rs7015630 | 8 | 90875918 | RIPK2 | C/T | 0.984 (0.91-1.064) | 0.6803 | T | 1.08 | same |
| rs4871611 | 8 | 126537570 | intergenic | G/A | 0.956 (0.891-1.025) | 0.2056 | A | 1.17 | same |
| rs1551398 | 8 | 126540051 | Intergenic | G/A | 0.958 (0.893-1.027) | 0.2259 | A | 1.08 | same |
| rs1906493 | 8 | 127092882 | Intergenic | T/G | 1.001 (0.884-1.133) | 0.9890 | T | 1.19 | same |
| rs6651252 | 8 | 129567181 | intergenic | C/T | 1.08 (0.975-1.196) | 0.1392 | T | 1.19 | opposing |
| rs10758669 | 9 | 4981602 | JAK2 | C/A | 1.026 (0.956-1.102) | 0.4722 | C | 1.18 | same |
| rs2274471 | 9 | 4985879 | JAK2 | C/T | 0.949 (0.876-1.028) | 0.1999 | T | 1.27 | same |
| rs6478106 | 9 | 117545666 | TNFSF15,LOC100129633, LOC645266,TNFSF8 | T/C | 0.982 (0.912-1.059) | 0.6413 | T | 1.73 | opposing |
| rs3810936 | 9 | 117552885 | TNFSF15,TNFSF8 | T/C | 0.984 (0.915-1.059) | 0.6749 | C | 1.21 | same |
| rs4263839 | 9 | 117566440 | TNFSF15 | A/G | 1.061 (0.973-1.158) | 0.1803 | G | 1.22 | opposing |
| rs11103429 | 9 | 137506578 | RXRA,COL5A1 | A/G | 0.899 (0.746-1.082) | 0.2600 | G | 3.6 | same |
| rs4077515 | 9 | 139266496 | CARD9,SNAPC4 | A/G | 0.945 (0.882-1.012) | 0.1051 | A | 1.18 | opposing |
| rs6601764 | 10 | 3862542 |  | T/C | 0.935 (0.856-1.02) | 0.1287 | C | 1.16 | same |
| rs1398024 | 10 | 23665438 | C10orf67 | T/G | 1.008 (0.928-1.094) | 0.8571 | T | 1.23 | same |
| rs17582416 | 10 | 35287650 | Intergenic | G/T | 1.022 (0.952-1.097) | 0.5430 | G | 1.16 | same |
| rs12242110 | 10 | 35535695 | CREM | C/T | 1.02 (0.949-1.096) | 0.5959 | C | 1.15 | same |
| rs1819658 | 10 | 59913151 | UBE2D1 | A/G | 1.049 (0.966-1.139) | 0.2519 | G | 1.19 | opposing |
| rs7076156 | 10 | 64415184 | ZNF365,ERG2,ADO | A/G | 0.95 (0.879-1.026) | 0.1904 | G | 1.19 | same |
| rs10761659 | 10 | 64445564 | ZNF365 | A/G | 1.045 (0.976-1.118) | 0.2071 | G | 1.23 | opposing |
| rs224136 | 10 | 64470675 | Intergenic | A/G | 1.072 (0.976-1.177) | 0.1480 | ? | 1.67 |  |
| rs1250544 | 10 | 81032885 | ZMIZ1 | A/G | 0.977 (0.91-1.048) | 0.5115 | G | 1.16 | same |
| rs1250550 | 10 | 81060317 | ZMIZ1 | A/C | 0.949 (0.883-1.019) | 0.1485 | C | 1.19 | same |
| rs4409764 | 10 | 101284237 | NKX2-3 | T/G | 1.001 (0.935-1.071) | 0.9876 | T | 1.22 | same |
| rs10883365 | 10 | 101287764 | NKX2-3 | G/A | 0.999 (0.934-1.069) | 0.9815 | G | 1.2 | opposing |
| rs11190140 | 10 | 101291593 | NKX2-3 | T/C | 0.994 (0.929-1.064) | 0.8602 | T | 1.2 | opposing |
| rs11190141 | 10 | 101292390 | NKX2-3,SLC25A28,GOT1, ENTPD7,CNNM1,COX15, CUTC | T/C | 1.035 (0.966-1.109) | 0.3290 | C | 1.34 | opposing |
| rs11195128 | 10 | 112186148 | SMNDC1,DUSP5, RP11-525A16.1 | T/C | 1.072 (0.982-1.17) | 0.1206 | T | 1.42 | same |
| rs10734105 | 10 | 133172119 | TCERG1L | A/G | 1.008 (0.914-1.111) | 0.8770 | G | 1.27 | opposing |
| rs1793004 | 11 | 20698929 | NELL1 | C/G | 1.001 (0.898-1.115) | 0.9857 | ? | 1.3 |  |
| rs11229030 | 11 | 57203009 | SLC43A3,PRG2,PRG3 | C/T | 0.979 (0.913-1.049) | 0.5425 | C | 1.15 | opposing |
| rs102275 | 11 | 61557803 | FADS1 | C/T | 1.018 (0.948-1.094) | 0.6260 | C | 1.08 | same |
| rs694739 | 11 | 64097233 | PRDX5,ESRRA | C/T | 0.947 (0.883-1.015) | 0.1260 | T | 1.1 | same |
| rs11564258 | 12 | 40792300 | MUC19,LRRK2 | A/G | 0.891 (0.704-1.127) | 0.3363 | A | 1.74 | opposing |
| rs2062305 | 13 | 43052880 | TNFSF11 | G/A | 1.065 (0.995-1.139) | 0.0700 | G | 1.1 | same |
| rs3764147 | 13 | 44457925 | LACC1,C13orf31 | C/T | 0.996 (0.921-1.076) | 0.9098 | C | 1.25 | opposing |
| rs8005161 | 14 | 88472595 | GALC,GPR65 | T/C | 1.015 (0.9-1.144) | 0.8064 | T | 1.23 | same |
| rs16967103 | 15 | 38899190 | RASGRP1,SPRED1 | C/T | 0.99 (0.908-1.08) | 0.8256 | C | 1.09 | opposing |
| rs17293632 | 15 | 67442596 | SMAD3 | A/G | 1.011 (0.934-1.094) | 0.7860 | A | 1.12 | same |
| rs4780355 | 16 | 11347858 | SOCS1 | C/T | 0.964 (0.897-1.037) | 0.3299 | T | 1.16 | same |
| rs151181 | 16 | 28490517 | IL27,SH2B1,EIF3C,LAT,CD19 | C/T | 1.012 (0.945-1.083) | 0.7401 | C | 1.07 | same |
| rs17221417 | 16 | 50739582 | NOD2 | G/C | 1.035 (0.962-1.113) | 0.3535 | G | 1.29 | same |
| rs2076756 | 16 | 50756881 | NOD2,CARD15 | G/A | 1.071 (0.993-1.154) | 0.0740 | ? | NA |  |
| rs11574514 | 16 | 67971380 | PSMB10 | T/C | 0.988 (0.823-1.186) | 0.8972 | T | 1.44 | opposing |
| rs7195303 | 16 | 75167579 | ZNRF1,LDHD,ZHP1,  BCAR1,CTRB1/2 | A/G | 0.981 (0.849-1.133) | 0.7909 | G | 2.1 | same |
| rs2945412 | 17 | 25843643 | LGALS9,NOS2 | G/A | 0.962 (0.898-1.03) | 0.2684 | A | 1.14 | same |
| rs3091315 | 17 | 32593665 | CCL2,CCL7 | G/A | 1.03 (0.955-1.111) | 0.4441 | A | 1.2 | opposing |
| rs3091316 | 17 | 32593974 | CCL7,CCL2,CCL11, CCL8,CCL13,CCL1 | A/G | 0.966 (0.882-1.059) | 0.4630 | G | 1.14 | same |
| rs2542151 | 18 | 12779947 | PTPN2 | C/A | 1.059 (0.965-1.162) | 0.2265 | C | 1.35 | same |
| rs1893217 | 18 | 12809340 | PTPN2 | C/T | 1.061 (0.967-1.164) | 0.2120 | C | 1.25 | same |
| rs2024092 | 19 | 1124031 | GPX4,HMHA1 | A/G | 1.024 (0.946-1.108) | 0.5647 | A | 1.16 | same |
| rs12720356 | 19 | 10469975 | TYK2,ICAM1,ICAM3 | G/T | 1.087 (0.958-1.233) | 0.1965 | G | 1.12 | same |
| rs736289 | 19 | 33757062 | intergenic | T/C | 1.019 (0.923-1.125) | 0.7108 | T | 1.06 | same |
| rs4802307 | 19 | 46849806 | Intergenic | T/G | 0.967 (0.897-1.041) | 0.3718 | G | 1.1 | same |
| rs516246 | 19 | 49206172 | DBP,SPHK2, IZUMO1,FUT2 | A/G | 0.947 (0.884-1.015) | 0.1230 | A | 1.11 | opposing |
| rs504963 | 19 | 49208865 | FUT2 | T/C | 0.937 (0.876-1.004) | 0.0634 | T | NA | opposing |
| rs1736135 | 21 | 16805220 | Intergenic | C/T | 0.979 (0.914-1.048) | 0.5409 | T | 1.18 | same |
| rs1736020 | 21 | 16812552 | intergenic | A/C | 0.984 (0.918-1.054) | 0.6372 | C | 1.16 | same |
| rs2284553 | 21 | 34776695 | IFNGR2,IFNAR1,IFNAR2, IL10RB,GART,TMEM50B | T/C | 0.934 (0.872-1) | 0.0511 | C | 1.12 | same |
| rs2834215 | 21 | 34796886 | IFNGR2 | A/G | 1.023 (0.94-1.113) | 0.6044 | ? | 1.22 |  |
| rs2836754 | 21 | 40291740 | Intergenic | T/C | 0.96 (0.895-1.03) | 0.2602 | ? | 1.15 |  |
| rs2838519 | 21 | 45615023 | ICOSLG | C/T | 1.018 (0.95-1.091) | 0.6143 | C | 1.18 | same |
| rs762421 | 21 | 45615561 | ICOSLG | C/T | 1.011 (0.943-1.083) | 0.7676 | C | 1.13 | same |
| rs181359 | 22 | 21928641 | YDJC | A/G | 0.985 (0.879-1.103) | 0.7867 | A | 1.1 | opposing |
| rs713875 | 22 | 30592487 | MTMR3 | G/C | 1.013 (0.946-1.084) | 0.7101 | C | 1.08 | opposing |
| rs2413583 | 22 | 39659773 | MAP3K7IP1 | A/G | 0.999 (0.912-1.094) | 0.9813 | G | 1.23 | same |
| rs4820425 | 22 | 41431342 | RBX1,EP300 | A/C | 1.06 (0.967-1.162) | 0.2125 | A | 1.27 | same |

SNPs meeting the nominal significance threshold for AD (P<0.05) are presented first.

Abbreviations: SNP single nucleotide polymorphism; CHR, chromosome; POS, chromosomal position (GRCh37/hg19); EA, effect allele; OA, other allele; RA, risk allele; OR, odds ratio; CI, confidence interval; Effect, same=agonistic effect on both traits of the risk allele, opposing=antagonistic effect on both traits of the risk allele.

Table E2. Association of known Ulcerative Colitis SNPs (GWASCatalog 2014-10) with Atopic Dermatitis in Atopic Dermatitis GWAS cohorts.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | Atopic Dermatitis | | | Ulcerative Colitis | | |
| SNP | CHR | POS | Reported Gene | EA/OA | OR (95% CI) | P-value | RA | OR | Effect |
| rs3774959 | 4 | 103511114 | NFKB1,MANBA | A/G | 0.881 (0.808-0.961) | 0.0044 | A | 1.12 | opposing |
| rs17388568 | 4 | 123329362 | IL21,IL2,ADAD1 | T/C | 1.176 (1.094-1.264) | 1.07E-05 | T | 1.12 | same |
| rs6451493 | 5 | 40410935 | PTGER4 | G/T | 1.076 (1.004-1.154) | 0.0378 | T | 1.08 | opposing |
| rs9268877 | 6 | 32431147 | HLA-DRA,BTNL2 | T/C | 1.114 (1.041-1.192) | 0.0017 | T | 1.45 | same |
| rs6920220 | 6 | 138006504 | Intergenic | T/C | 0.882 (0.81-0.961) | 0.0040 | T | 1.14 | opposing |
| rs2108225 | 7 | 107453103 | SLC26A3 | T/C | 1.071 (1-1.146) | 0.0493 | T | 1.32 | same |
| rs907611 | 11 | 1874072 | LSP1 | A/G | 0.886 (0.791-0.993) | 0.0375 | A | 1.08 | opposing |
| rs2155219 | 11 | 76299194 | Intergenic | G/T | 0.808 (0.755-0.864) | 6.85E-10 | T | 1.13 | same |
| rs7134599 | 12 | 68500075 | IFNG, IL26 | T/C | 0.903 (0.842-0.968) | 0.0041 | T | 1.19 | opposing |
| rs1558744 | 12 | 68504592 | IFNG, IL26, IL22 | A/G | 0.922 (0.86-0.988) | 0.0207 | A | 1.35 | opposing |
| rs941823 | 13 | 41013977 | Intergenic | T/C | 1.09 (1.008-1.178) | 0.0310 | C | 1.12 | opposing |
| rs2872507 | 17 | 38040763 | IKZF3,ORMDL3,IKZF3,PNMT,ZPBP2,GSDML | A/G | 0.917 (0.856-0.981) | 0.0121 | A | 1.15 | opposing |
| rs2305480 | 17 | 38062196 | ORMDL3,ZPBP2M, GSDML | A/G | 0.915 (0.855-0.979) | 0.0104 | A | 1.15 | opposing |
| rs2297441 | 20 | 62327582 | SLC2A4RG,STMN3, ZBTB46,ZGPAT, RTEL1,TNFRSF6B | G/A | 0.766 (0.703-0.834) | 9.09E-10 | A | 1.09 | same |
| rs10797432 | 1 | 2501338 | TNFRSF14,MMEL1, PLCH2 | T/C | 1.024 (0.939-1.117) | 0.5984 | C | 1.08 | opposing |
| rs734999 | 1 | 2513216 | TNFRSF14,MMEL1, PLCH2,C1orf93 | T/C | 0.953 (0.89-1.02) | 0.1679 | C | 1.05 | same |
| rs35675666 | 1 | 8021973 | TNFRSF9,ERFFI1, UTS2,PARK7 | T/G | 1.07 (0.955-1.199) | 0.2419 | G | 1.08 | opposing |
| rs1317209 | 1 | 20140036 | RNF186,OTUD3, PLA2G2E | A/G | 1.035 (0.931-1.15) | 0.5248 | A | 1.17 | same |
| rs3806308 | 1 | 20142866 | RNF186 | T/C | 1.002 (0.934-1.074) | 0.9559 | ? | 1.28 |  |
| rs6426833 | 1 | 20171860 | OTUD3,PLA2G2E | G/A | 1.013 (0.947-1.084) | 0.7051 | A | 1.3 | opposing |
| rs4654903 | 1 | 20200990 | RNF186,OTUD3, PLA2G2E | A/G | 0.964 (0.901-1.032) | 0.2955 | ? | 1.56 |  |
| rs4654925 | 1 | 20227723 | OTUD3 | G/C | 1.005 (0.939-1.075) | 0.8863 | G | 1.41 | same |
| rs7524102 | 1 | 22698447 | Intergenic | C/T | 1.089 (0.994-1.193) | 0.0687 | T | 1.1 | opposing |
| rs2201841 | 1 | 67694202 | IL23R | C/T | 1.025 (0.951-1.105) | 0.5168 | T | 1.27 | opposing |
| rs11209026 | 1 | 67705958 | IL23R | A/G | 1.073 (0.938-1.228) | 0.3037 | ? | 1.79 |  |
| rs10889677 | 1 | 67725120 | IL23R | T/G | 1.021 (0.947-1.1) | 0.5952 | T | 1.29 | same |
| rs10800309 | 1 | 161472158 | FCGR2AFCGR2C | T/C | 0.984 (0.918-1.054) | 0.6381 | T | 1.2 | opposing |
| rs1801274 | 1 | 161479745 | FCGR2A,FCGR2B,HSPA6 | G/A | 1.05 (0.98-1.124) | 0.1630 | A | 1.21 | opposing |
| rs2816958 | 1 | 200101920 | Intergenic | A/G | 1.075 (0.966-1.197) | 0.1856 | G | 1.23 | opposing |
| rs7554511 | 1 | 200877562 | C1orf106,KIF21B | A/C | 1.013 (0.939-1.093) | 0.7367 | C | 1.19 | opposing |
| rs11584383 | 1 | 200935866 | K1F21B | C/T | 1.01 (0.937-1.088) | 0.8020 | T | 1.27 | opposing |
| rs3024505 | 1 | 206939904 | IL10,IL19 | T/C | 1.026 (0.937-1.124) | 0.5759 | T | 1.46 | same |
| rs3024493 | 1 | 206943968 | IL10 | T/G | 1.026 (0.937-1.124) | 0.5749 | T | 1.35 | same |
| rs13003464 | 2 | 61186829 | REL,CCDC139,PUS10 | C/T | 1.026 (0.958-1.099) | 0.4612 | C | 1.13 | same |
| rs7608910 | 2 | 61204856 | PUS10 | G/A | 1.023 (0.955-1.096) | 0.5203 | G | 1.19 | same |
| rs2310173 | 2 | 102663628 | IL1R2 | T/G | 0.993 (0.928-1.062) | 0.8331 | T | 1.09 | opposing |
| rs1016883 | 2 | 198881668 | RFTN2,PLCL1 | A/G | 0.972 (0.872-1.084) | 0.6133 | G | 1.1 | same |
| rs17229285 | 2 | 199523122 | Intergenic | A/G | 0.996 (0.931-1.066) | 0.9202 | G | 1.12 | same |
| rs1992950 | 2 | 200290359 | SATB2 | A/G | 0.953 (0.862-1.052) | 0.3396 | A | 1.1 | opposing |
| rs11676348 | 2 | 219010146 | IL8RA,SLC11A1,IL8RB, AAMP,ARPC | A/G | 1.003 (0.937-1.073) | 0.9292 | A | 1.07 | same |
| rs4676410 | 2 | 241563739 | GPR35 | A/G | 1.073 (0.987-1.168) | 0.0987 | A | 1.38 | same |
| rs4676406 | 2 | 241579108 | GPR35 | G/T | 1 (0.935-1.07) | 0.9922 | T | 1.14 | opposing |
| rs9858542 | 3 | 49701983 | MST1 | T/C | 0.971 (0.901-1.047) | 0.4472 | ? | NA |  |
| rs9822268 | 3 | 49719729 | MST1,UBA7,APEH, AMIGO3,GMPPB,BSN | A/G | 0.971 (0.9-1.047) | 0.4393 | A | 1.21 | opposing |
| rs3197999 | 3 | 49721532 | MST1 | T/C | 0.968 (0.897-1.044) | 0.4009 | T | 1.2 | opposing |
| rs9847710 | 3 | 53062661 | PRKCD,ITIH4 | C/T | 1.058 (0.987-1.133) | 0.1115 | C | 1.06 | same |
| rs6811556 | 4 | 180284814 | Intergenic | T/C | 1.011 (0.929-1.1) | 0.8034 | T | NA | same |
| rs4957048 | 5 | 583442 | CEP72,TPPP | T/C | 1.017 (0.937-1.105) | 0.6808 | C | 1.3 | opposing |
| rs11739663 | 5 | 594083 | SLC9A3,EXOC3 | G/A | 1.003 (0.924-1.088) | 0.9489 | A | 1.07 | opposing |
| rs267939 | 5 | 10752315 | DAP | T/C | 1.027 (0.943-1.119) | 0.5391 | C | 1.1 | opposing |
| rs3194051 | 5 | 35876274 | IL7R | C/T | 0.98 (0.908-1.056) | 0.5902 | C | 1.07 | opposing |
| rs4571457 | 5 | 107834247 | Intergenic | T/C | 0.991 (0.908-1.081) | 0.8388 | C | NA | same |
| rs254560 | 5 | 134443606 | Intergenic | T/C | 0.967 (0.903-1.036) | 0.3431 | T | 1.06 | opposing |
| rs6871626 | 5 | 158826792 | IL12B | T/G | 1.073 (0.999-1.152) | 0.0542 | T | 1.17 | same |
| rs9263739 | 6 | 31111356 | HLA | T/C | 1.073 (0.975-1.182) | 0.1489 | T | 2.73 | same |
| rs17207986 | 6 | 32079567 | MHC | G/A | 0.962 (0.833-1.11) | 0.5937 | G | 3.95 | opposing |
| rs9268480 | 6 | 32363844 | BTNL2 | A/G | 0.978 (0.904-1.057) | 0.5694 | G | 1.82 | same |
| rs9268853 | 6 | 32429643 | HLA-DRB5,HLA-DQA1, HLA-DRB1,HLA-DRA | C/T | 0.94 (0.871-1.015) | 0.1117 | T | 1.37 | same |
| rs9268923 | 6 | 32432835 | HLA-DRA | T/C | 0.939 (0.87-1.014) | 0.1083 | C | 1.45 | same |
| rs2395185 | 6 | 32433167 | BTNL2,HLA-DRA, HLA-DRB5,HLA-DRB1, HLA-DQA1,HLA-DQB1 | A/C | 0.94 (0.87-1.014) | 0.1109 | C | 1.92 | same |
| rs9271366 | 6 | 32586854 | HLA-DRB1,HLA-DQA1 | C/T | 0.978 (0.888-1.076) | 0.6484 | C | 2.1 | opposing |
| rs6927022 | 6 | 32612397 | HLA-DQB1,HLA-DRB1, HLA-DQA1,HLA-DRA | A/G | 1.082 (0.985-1.189) | 0.1000 | A | 1.44 | same |
| rs943072 | 6 | 43795968 | Intergenic | C/A | 1.059 (0.941-1.191) | 0.3409 | C | 1.15 | same |
| rs6911490 | 6 | 106522027 | PDRM1 | T/C | 1.05 (0.966-1.14) | 0.2532 | T | 1.08 | same |
| rs798502 | 7 | 2789880 | CARD11,GNA12,TTYH3 | A/C | 1.007 (0.92-1.102) | 0.8792 | A | 1.13 | same |
| rs11764116 | 7 | 18800413 | HDAC9 | T/G | 1.005 (0.925-1.092) | 0.9043 | T | NA | same |
| rs4722672 | 7 | 27231762 | Intergenic | G/A | 1.059 (0.973-1.153) | 0.1835 | G | 1.09 | same |
| rs929351 | 7 | 81857893 | CACNA2D1 | C/A | 0.993 (0.927-1.063) | 0.8315 | C | NA | opposing |
| rs4730273 | 7 | 107479519 | Intergenic | T/G | 1.039 (0.966-1.117) | 0.3087 | ? | 1.22 |  |
| rs4380874 | 7 | 107480315 | DLD | A/G | 0.979 (0.914-1.049) | 0.5520 | A | 1.14 | opposing |
| rs4730276 | 7 | 107484437 | SLC26A3,DLD,LAMB1 | A/G | 1.052 (0.982-1.126) | 0.1517 | ? | 1.22 |  |
| rs4510766 | 7 | 107492789 | Intergenic | C/T | 1.038 (0.97-1.111) | 0.2768 | T | 1.2 | opposing |
| rs886774 | 7 | 107495434 | LAMB1 | G/A | 0.977 (0.912-1.047) | 0.5097 | G | 1.11 | opposing |
| rs4598195 | 7 | 107503441 | SLC26A3,DLD,LAMB1 | G/T | 1.021 (0.954-1.093) | 0.5532 | ? | 1.23 |  |
| rs2158836 | 7 | 107580839 | SLC26A3,DLD,LAMB1 | T/C | 0.976 (0.911-1.046) | 0.4898 | T | 1.21 | opposing |
| rs4728142 | 7 | 128573967 | IRF5,TNPO3,TSPAN33 | T/C | 1.045 (0.976-1.119) | 0.2080 | T | 1.07 | same |
| rs10758669 | 9 | 4981602 | JAK2 | C/A | 1.026 (0.956-1.102) | 0.4722 | C | 1.17 | same |
| rs10975003 | 9 | 5213687 | JAK2,INSL6,INSL4 | C/T | 1.007 (0.937-1.082) | 0.8489 | C | 1.34 | same |
| rs668853 | 9 | 85311147 | Intergenic | T/C | 0.946 (0.871-1.028) | 0.1926 | C | 1.2 | same |
| rs4246905 | 9 | 117553249 | TNFSF8,TNFSF15 | A/G | 0.998 (0.926-1.077) | 0.9638 | G | 1.1 | same |
| rs11554257 | 9 | 117605070 | TNFSF15 | G/A | 1.015 (0.919-1.121) | 0.7688 | G | 1.82 | same |
| rs10781499 | 9 | 139266405 | CARD9,INPP5E, SDCCAG3,SEC16A, SNAPC4 | T/C | 0.943 (0.881-1.01) | 0.0961 | T | 1.12 | opposing |
| rs4077515 | 9 | 139266496 | CARD9 | A/G | 0.945 (0.882-1.012) | 0.1051 | G | 1.14 | same |
| rs10781500 | 9 | 139269338 | CARD9 | T/C | 0.946 (0.883-1.013) | 0.1104 | ? | NA |  |
| rs12261843 | 10 | 35554054 | CCNY | T/G | 0.973 (0.887-1.067) | 0.5580 | G | 1.07 | same |
| rs6584283 | 10 | 101290301 | NKX2, NKX3 | A/G | 0.996 (0.93-1.066) | 0.8999 | A | 1.22 | opposing |
| rs11190140 | 10 | 101291593 | NKX2-3 | T/C | 0.994 (0.929-1.064) | 0.8602 | T | 1.2 | opposing |
| rs483905 | 11 | 96023427 | JRKL,MAML2 | A/G | 0.989 (0.918-1.066) | 0.7782 | A | 1.06 | opposing |
| rs561722 | 11 | 114386830 | NXPE1,NXPE4 | A/G | 0.979 (0.912-1.051) | 0.5554 | G | 1.12 | same |
| rs2870946 | 12 | 68596661 | IL26 | T/C | 1.132 (0.924-1.388) | 0.2306 | C | 1.54 | opposing |
| rs17085007 | 13 | 27531267 | USP12 | G/A | 1.057 (0.969-1.153) | 0.2109 | G | 1.37 | same |
| rs9548988 | 13 | 40505510 | Intergenic | T/C | 0.985 (0.907-1.07) | 0.7249 | T | 1.1 | opposing |
| rs7319358 | 13 | 79550934 | Intergenic | T/C | 1.005 (0.939-1.076) | 0.8865 | T | NA | same |
| rs1956388 | 14 | 29132877 | Intergenic | T/C | 0.973 (0.909-1.042) | 0.4362 | T | NA | opposing |
| rs28374715 | 15 | 41563950 | ITPKA,NDUFAF1,NUSAP1 | G/A | 1.006 (0.931-1.086) | 0.8884 | A | 1.08 | opposing |
| rs4781011 | 16 | 10975311 | CIITA | A/C | 1.052 (0.974-1.136) | 0.1941 | A | 1.12 | same |
| rs11150589 | 16 | 30482494 | ITGAL | T/C | 1.016 (0.95-1.088) | 0.6366 | T | 1.09 | same |
| rs1728785 | 16 | 68591230 | ZFP90 | T/G | 1.06 (0.978-1.149) | 0.1544 | G | 1.17 | opposing |
| rs6499188 | 16 | 68674788 | ZFP90 | G/A | 1.067 (0.988-1.153) | 0.1007 | A | 1.14 | opposing |
| rs16940186 | 16 | 86009740 | IRF8 | T/C | 1.029 (0.901-1.177) | 0.6721 | C | 1.56 | opposing |
| rs16940202 | 16 | 86014241 | Intergenic | T/C | 1.03 (0.901-1.178) | 0.6668 | C | 1.15 | opposing |
| rs8067378 | 17 | 38051348 | GSDMB | T/C | 1.056 (0.987-1.13) | 0.1126 | T | 1.12 | same |
| rs7210086 | 17 | 70641698 | Intergenic | A/C | 1.034 (0.931-1.15) | 0.5293 | A | 1.11 | same |
| rs1452787 | 18 | 53207207 | TCF4 | A/G | 1.039 (0.949-1.138) | 0.4083 | A | 1.33 | same |
| rs1126510 | 19 | 47123783 | CALM3 | A/G | 0.974 (0.886-1.07) | 0.5793 | G | 1.08 | same |
| rs6059101 | 20 | 31718653 | C20orf71,C20orf70 | T/C | 1.028 (0.92-1.149) | 0.6251 | T | NA | same |
| rs6088765 | 20 | 33799280 | PROCR,UQCC,CEP250 | C/A | 1.014 (0.947-1.085) | 0.6899 | C | 1.08 | same |
| rs6017342 | 20 | 43065028 | ADA,HNF4A,SERINC3 | T/G | 1.007 (0.941-1.078) | 0.8433 | G | 1.17 | opposing |
| rs1736135 | 21 | 16805220 |  | C/T | 0.979 (0.914-1.048) | 0.5409 | T | 1.2 | same |
| rs1297265 | 21 | 16817051 | Intergenic | G/A | 0.969 (0.905-1.038) | 0.3706 | A | 1.11 | same |
| rs2836878 | 21 | 40465534 | Intergenic | T/C | 0.997 (0.924-1.075) | 0.9287 | C | 1.25 | same |
| rs2838519 | 21 | 45615023 | ICOSLG | C/T | 1.018 (0.95-1.091) | 0.6143 | C | 1.14 | same |
| rs5771069 | 22 | 50435480 | PIM3,IL17REL | A/G | 1.047 (0.955-1.147) | 0.3310 | G | 1.17 | opposing |

SNPs meeting the nominal significance threshold for AD (P<0.05) are presented first.

Abbreviations: SNP single nucleotide polymorphism; CHR, chromosome; POS, chromosomal position (GRCh37/hg19); EA, effect allele; OA, other allele; RA, risk allele; OR, odds ratio; CI, confidence interval; Effect, same=agonistic effect on both traits of the risk allele, opposing=antagonistic effect on both traits of the risk allele.

Table E3. Association of known Rheumatoid Arthritis SNPs (GWASCatalog 2014-10) with Atopic Dermatitis in Atopic Dermatitis GWAS cohorts.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | Atopic Dermatitis | | | Rheumatoid Arthritis | | |
| SNP | CHR | POS | Reported Gene | EA/OA | OR (95% CI) | P-value | RA | OR | Effect |
| rs3890745 | 1 | 2553624 | MMEL1,TNFRSF14 | C/T | 0.917 (0.851-0.987) | 0.0207 | T | 1.12 | same |
| rs2228145 | 1 | 154426970 | IL6R | A/C | 0.856 (0.787-0.931) | 2.61E-04 | A | 1.08 | opposing |
| rs2867461 | 4 | 79513215 | ANXA3 | A/G | 1.122 (1.027-1.225) | 0.0106 | A | 1.13 | same |
| rs13119723 | 4 | 123218313 | IL2,IL21 | G/A | 0.899 (0.812-0.996) | 0.0409 | A | 1.12 | same |
| rs45475795 | 4 | 123399491 | IL2, IL21 | C/T | 1.187 (1.053-1.337) | 0.0049 | C | 1.14 | same |
| rs12529514 | 6 | 14096658 | CD83 | T/C | 1.303 (1.048-1.62) | 0.0172 | C | 1.14 | opposing |
| rs805297 | 6 | 31622606 | APOM | T/G | 1.096 (1.021-1.177) | 0.0116 | T | 1.56 | same |
| rs9272219 | 6 | 32602269 | HLA-DQA1 | T/G | 1.09 (1.013-1.173) | 0.0211 | T | 1.92 | same |
| rs6457617 | 6 | 32663851 | HLA-DQA1,HLA-DQA2 | G/A | 0.889 (0.831-0.951) | 6.65E-04 | A | 2.36 | same |
| rs6457620 | 6 | 32663999 | HLA-DRB1 | G/C | 0.89 (0.831-0.952) | 7.24E-04 | G | 2.55 | opposing |
| rs6920220 | 6 | 138006504 | TNFAIP3,OLIG3 | T/C | 0.882 (0.81-0.961) | 0.0040 | T | 1.22 | opposing |
| rs2451258 | 6 | 159506600 | TAGAP | C/T | 1.084 (1.009-1.165) | 0.0274 | T | 1.1 | opposing |
| rs67250450 | 7 | 28174986 | JAZF1 | G/A | 1.146 (1.058-1.242) | 8.30E-04 | A | 1.1 | opposing |
| rs10488631 | 7 | 128594183 | IRF5 | G/A | 1.132 (1.016-1.262) | 0.0242 | G | 1.19 | same |
| rs998731 | 8 | 81095395 | TPD52 | T/C | 1.088 (1.017-1.164) | 0.0147 | T | 1.09 | same |
| rs947474 | 10 | 6390450 | PRKCQ | G/A | 1.103 (1.014-1.2) | 0.0229 | A | 1.12 | opposing |
| rs4750316 | 10 | 6393260 | PRKCQ | G/C | 1.104 (1.016-1.2) | 0.0202 | G | 1.14 | same |
| rs6479800 | 10 | 64036881 | RTKN2 | C/G | 0.899 (0.81-0.997) | 0.0428 | C | 1.19 | opposing |
| rs2582532 | 14 | 105392837 | PLD4,AHNAK2 | T/C | 1.562 (1.138-2.145) | 0.0058 | C | 1.18 | opposing |
| rs1877030 | 17 | 37740161 | MED1 | A/G | 1.126 (1.027-1.234) | 0.0118 | G | 1.09 | opposing |
| rs2872507 | 17 | 38040763 | IKZF3 | A/G | 0.917 (0.856-0.981) | 0.0121 | A | 1.1 | opposing |
| rs8083786 | 18 | 12881361 | PTPN2 | A/G | 0.858 (0.765-0.963) | 0.0094 | G | 1.12 | same |
| rs34536443 | 19 | 10463118 | TYK2 | C/G | 0.793 (0.663-0.948) | 0.0106 | G | 1.46 | same |
| rs4810485 | 20 | 44747947 | CD40 | A/C | 1.085 (1.005-1.171) | 0.0379 | A | 1.18 | same |
| rs187786174 | 1 | 2523811 | TNFRSF14,MMEL1 | A/G | 0.98 (0.892-1.076) | 0.6710 | G | 1.11 | same |
| rs227163 | 1 | 7961206 | TNFRSF9 | G/A | 0.955 (0.892-1.023) | 0.1918 | G | 1.11 | opposing |
| rs2301888 | 1 | 17672730 | PADI4 | T/C | 1.035 (0.964-1.111) | 0.3482 | C | 1.19 | opposing |
| rs2240335 | 1 | 17674537 | PADI4 | A/C | 1.036 (0.965-1.112) | 0.3260 | ? | 1.5 |  |
| rs28411352 | 1 | 38278579 | MTF1,INPP5B | T/C | 1.058 (0.947-1.182) | 0.3140 | T | 1.11 | same |
| rs12131057 | 1 | 38624129 | POU3F1 | A/G | 1.072 (0.976-1.177) | 0.1448 | G | 1.16 | opposing |
| rs12140275 | 1 | 38633879 | LOC339442 | A/T | 0.932 (0.849-1.024) | 0.1432 | A | 1.11 | opposing |
| rs6679677 | 1 | 114303808 | PTPN22 | A/C | 0.916 (0.819-1.024) | 0.1241 | ? | 1.79 |  |
| rs2476601 | 1 | 114377568 | PTPN22 | A/G | 0.917 (0.82-1.026) | 0.1287 | A | 1.8 | opposing |
| rs624988 | 1 | 117263790 | CD2 | T/C | 0.985 (0.92-1.055) | 0.6682 | T | 1.09 | opposing |
| rs2317230 | 1 | 157674997 | FCRL3 | T/G | 1.01 (0.93-1.098) | 0.8075 | T | 1.07 | same |
| rs72717009 | 1 | 161405053 | FCGR2A | T/C | 0.929 (0.798-1.082) | 0.3457 | T | 1.13 | opposing |
| rs840016 | 1 | 167408670 | CD247 | T/C | 0.947 (0.883-1.015) | 0.1253 | C | 1.11 | same |
| rs2105325 | 1 | 173349725 | LOC100506023 | A/C | 1.054 (0.96-1.157) | 0.2725 | C | 1.12 | opposing |
| rs10175798 | 2 | 30449594 | LBH | A/G | 0.965 (0.886-1.05) | 0.4016 | A | 1.08 | opposing |
| rs4305317 | 2 | 42080624 | RPS12P4,LDHAL3 | G/T | 0.988 (0.923-1.057) | 0.7293 | ? | 1.45 |  |
| rs34695944 | 2 | 61124850 | REL | C/T | 0.932 (0.869-1) | 0.0501 | C | 1.12 | opposing |
| rs13031237 | 2 | 61136129 | REL | A/C | 0.943 (0.879-1.012) | 0.1035 | A | 1.13 | opposing |
| rs13017599 | 2 | 61164331 | REL | T/C | 0.94 (0.876-1.009) | 0.0876 | T | 1.21 | opposing |
| rs11900673 | 2 | 62452661 | B3GNT2 | T/C | 0.946 (0.829-1.079) | 0.4050 | T | 1.11 | opposing |
| rs13385025 | 2 | 62461120 | B3GNT2 | A/G | 0.938 (0.815-1.08) | 0.3763 | A | 1.11 | opposing |
| rs934734 | 2 | 65595586 | SPRED2 | C/T | 1.039 (0.971-1.112) | 0.2624 | C | 1.13 | same |
| rs1858037 | 2 | 65598300 | SPRED2 | A/T | 0.987 (0.919-1.06) | 0.7127 | T | 1.19 | same |
| rs11676922 | 2 | 100806940 | AFF3 | A/T | 0.951 (0.889-1.018) | 0.1493 | T | 1.12 | same |
| rs9653442 | 2 | 100825367 | AFF3 | C/T | 0.947 (0.885-1.014) | 0.1176 | C | 1.11 | opposing |
| rs10865035 | 2 | 100835734 | AFF3 | T/C | 0.95 (0.887-1.016) | 0.1357 | T | 1.12 | opposing |
| rs6732565 | 2 | 111607832 | ACOXL | A/G | 1.04 (0.955-1.132) | 0.3732 | A | 1.07 | same |
| rs11889341 | 2 | 191943742 | STAT4 | A/G | 0.969 (0.893-1.052) | 0.4560 | A | 1.12 | opposing |
| rs7574865 | 2 | 191964633 | STAT4 | T/G | 0.97 (0.893-1.054) | 0.4714 | T | 1.16 | opposing |
| rs1980422 | 2 | 204610396 | CD28 | G/A | 1.053 (0.973-1.14) | 0.1998 | G | 1.12 | same |
| rs231735 | 2 | 204693876 | CTLA4 | G/T | 0.957 (0.894-1.024) | 0.2016 | T | 1.17 | same |
| rs3087243 | 2 | 204738919 | CTLA4 | A/G | 0.966 (0.902-1.034) | 0.3203 | G | 1.15 | same |
| rs4452313 | 3 | 17047032 | PLCL2 | A/T | 1.062 (0.963-1.172) | 0.2272 | T | 1.11 | opposing |
| rs3806624 | 3 | 27764623 | EOMES | C/T | 1.004 (0.938-1.074) | 0.9152 | C | 1.08 | same |
| rs2062583 | 3 | 56966246 | ARHGEF3 | T/G | 1.076 (0.979-1.182) | 0.1269 | ? | 1.59 |  |
| rs73081554 | 3 | 58302935 | DNASE1L3,ABHD6,PXK | T/C | 1.076 (0.938-1.233) | 0.2978 | T | 1.18 | same |
| rs13315591 | 3 | 58556841 | PXK | T/C | 0.81 (0.617-1.063) | 0.1288 | C | 1.29 | same |
| rs13142500 | 4 | 10727357 | CLNK | T/C | 0.968 (0.884-1.06) | 0.4858 | C | 1.1 | same |
| rs6448119 | 4 | 22091384 | KCNIP4,GPR125 | T/C | 0.991 (0.915-1.074) | 0.8265 | ? | NA |  |
| rs3816587 | 4 | 25417244 |  | T/C | 0.925 (0.851-1.005) | 0.0653 | C | 1.09 | same |
| rs6448432 | 4 | 26098810 | RBPJ | A/G | 1.029 (0.956-1.107) | 0.4477 | ? | 1.19 |  |
| rs874040 | 4 | 26108197 | RBPJ | G/C | 1.03 (0.956-1.108) | 0.4393 | C | 1.14 | opposing |
| rs11933540 | 4 | 26120001 | C4orf52 | C/T | 1.029 (0.957-1.107) | 0.4411 | C | 1.15 | same |
| rs2664035 | 4 | 48220839 | TEC | A/G | 1.018 (0.931-1.113) | 0.6906 | A | 1.07 | same |
| rs255758 | 5 | 53311502 | ARL15 | A/C | 0.927 (0.844-1.017) | 0.1076 | C | 1.42 | same |
| rs6859219 | 5 | 55438580 | ANKRD55,IL6ST | T/G | 0.943 (0.867-1.025) | 0.1693 | G | 1.28 | same |
| rs7731626 | 5 | 55444683 | ANKRD55 | A/G | 0.928 (0.832-1.035) | 0.1801 | G | 1.21 | same |
| rs26232 | 5 | 102596720 | C5orf30 | T/C | 0.996 (0.926-1.071) | 0.9030 | C | 1.14 | same |
| rs2561477 | 5 | 102608924 | C5orf30 | A/G | 0.995 (0.926-1.07) | 0.9015 | G | 1.11 | same |
| rs657075 | 5 | 131430118 | IL3,CSF2 | A/G | 0.918 (0.704-1.196) | 0.5253 | A | 1.09 | opposing |
| rs2961663 | 5 | 177613544 | GMCL1L | T/C | 0.925 (0.785-1.091) | 0.3538 | ? | NA |  |
| rs9378815 | 6 | 426155 | IRF4 | C/G | 0.994 (0.908-1.088) | 0.9005 | C | 1.09 | opposing |
| rs1610677 | 6 | 29789171 | HLA-G | G/A | 1.004 (0.938-1.075) | 0.8987 | ? | 1.32 |  |
| rs9296015 | 6 | 32218989 | MHC | A/G | 0.931 (0.758-1.143) | 0.4940 | ? | NA |  |
| rs6910071 | 6 | 32282854 | HLA-DRB1 | C/T | 1.081 (0.992-1.179) | 0.0771 | C | 2.88 | same |
| rs3763309 | 6 | 32375973 | HLA–DRB1 | A/C | 0.929 (0.769-1.122) | 0.4423 | ? | 2.3 |  |
| rs9268853 | 6 | 32429643 | HLA-DRA | C/T | 0.94 (0.871-1.015) | 0.1117 | C | 2.4 | opposing |
| rs615672 | 6 | 32574171 | HLA-DRB1 | C/G | 1.048 (0.955-1.151) | 0.3209 | ? | NA |  |
| rs660895 | 6 | 32577380 | HLA-DRB1 | G/A | 1.07 (0.98-1.169) | 0.1320 | ? | 3.62 |  |
| rs13192471 | 6 | 32671103 | HLA-DRB1 | G/A | 0.94 (0.854-1.034) | 0.2033 | G | 1.97 | opposing |
| rs2233424 | 6 | 44233921 | NFKBIE | T/C | 0.856 (0.648-1.132) | 0.2751 | T | 1.33 | opposing |
| rs10499194 | 6 | 138002637 | TNFAIP3,OLIG3 | A/G | 0.996 (0.922-1.076) | 0.9137 | G | 1.33 | same |
| rs2230926 | 6 | 138196066 | OLIG3,TNFAIP3 | C/A | 0.933 (0.758-1.149) | 0.5144 | C | 1.31 | opposing |
| rs7752903 | 6 | 138227364 | TNFAIP3 | G/T | 0.927 (0.746-1.153) | 0.4971 | G | 1.41 | opposing |
| rs9373594 | 6 | 149834574 | PPIL4 | T/C | 0.901 (0.8-1.016) | 0.0884 | T | 1.11 | opposing |
| rs3093024 | 6 | 167532793 | CCR6 | T/C | 0.956 (0.894-1.024) | 0.2008 | T | 1.19 | opposing |
| rs3093023 | 6 | 167534290 | CCR6 | A/G | 0.956 (0.893-1.024) | 0.1962 | A | 1.13 | opposing |
| rs1571878 | 6 | 167540842 | CCR6 | C/T | 0.964 (0.901-1.032) | 0.2940 | C | 1.13 | opposing |
| rs6956740 | 7 | 45903807 | IGFBP1 | A/G | 0.878 (0.706-1.092) | 0.2422 | ? | 3.49 |  |
| rs4272 | 7 | 92236829 | CDK6 | C/T | 1.059 (0.976-1.148) | 0.1705 | C | 1.1 | same |
| rs42041 | 7 | 92246744 | CDK6 | C/G | 0.953 (0.865-1.049) | 0.3251 | G | 1.11 | same |
| rs3778753 | 7 | 128580042 | IRF5 | G/A | 1.054 (0.985-1.129) | 0.1275 | G | 1.12 | same |
| rs3807306 | 7 | 128580680 | IRF5 | T/G | 1.066 (0.996-1.141) | 0.0631 | ? | 1.44 |  |
| rs11761231 | 7 | 131370039 | Intergenic | T/C | 1.025 (0.932-1.127) | 0.6083 | C | 1.32 | opposing |
| rs2736337 | 8 | 11341880 | BLK | T/C | 0.975 (0.882-1.078) | 0.6192 | C | 1.09 | same |
| rs2736340 | 8 | 11343973 | BLK | T/C | 1.004 (0.928-1.086) | 0.9244 | T | 1.19 | same |
| rs1600249 | 8 | 11359638 | BLK | T/G | 1.007 (0.93-1.092) | 0.8556 | ? | 1.3 |  |
| rs678347 | 8 | 102463602 | GRHL2 | C/T | 0.984 (0.913-1.062) | 0.6842 | C | 1.1 | opposing |
| rs1516971 | 8 | 129542100 | PVT1 | T/C | 1.087 (0.961-1.228) | 0.1837 | T | 1.16 | same |
| rs2812378 | 9 | 34710260 | CCL21 | C/T | 0.961 (0.894-1.032) | 0.2751 | C | 1.12 | opposing |
| rs11574914 | 9 | 34710338 | CCL19,CCL21 | A/G | 0.96 (0.893-1.031) | 0.2637 | A | 1.12 | opposing |
| rs951005 | 9 | 34743681 | CCL21 | C/T | 1.008 (0.92-1.105) | 0.8665 | T | 1.19 | opposing |
| rs10985070 | 9 | 123636121 | TRAF1,C5 | C/A | 1.006 (0.94-1.077) | 0.8655 | C | 1.09 | same |
| rs881375 | 9 | 123652898 | TRAF1,C5 | T/C | 0.998 (0.914-1.091) | 0.9713 | ? | NA |  |
| rs3761847 | 9 | 123690239 | TRAF1,C5 | C/T | 1.006 (0.94-1.077) | 0.8671 | C | 1.32 | same |
| rs706778 | 10 | 6098949 | IL2RA | T/C | 1.043 (0.96-1.134) | 0.3216 | T | 1.12 | same |
| rs2104286 | 10 | 6099045 | IL2RA | C/T | 0.957 (0.886-1.034) | 0.2664 | ? | 1.19 |  |
| rs3824660 | 10 | 8104722 | GATA3 | T/C | 0.921 (0.844-1.005) | 0.0649 | C | 1.08 | same |
| rs793108 | 10 | 31415106 | ZNF438 | G/A | 1.032 (0.964-1.104) | 0.3609 | A | 1.08 | opposing |
| rs2671692 | 10 | 50097819 | WDFY4 | G/A | 1.013 (0.944-1.087) | 0.7233 | A | 1.07 | opposing |
| rs10821944 | 10 | 63785089 | ARID5B | T/G | 1.028 (0.938-1.126) | 0.5604 | G | 1.16 | opposing |
| rs3125734 | 10 | 63958112 | RTKN2 | T/C | 0.996 (0.914-1.085) | 0.9263 | T | 1.2 | opposing |
| rs331463 | 11 | 36501787 | TRAF6,RAG1,RAG2 | A/T | 1.056 (0.944-1.18) | 0.3398 | T | 1.12 | opposing |
| rs968567 | 11 | 61595564 | FADS1,FADS2,FADS3 | A/G | 1.002 (0.914-1.098) | 0.9618 | G | 1.12 | opposing |
| rs3781913 | 11 | 72373496 | PDE2A,ARAP1 | T/G | 1.066 (0.98-1.158) | 0.1350 | T | 1.12 | same |
| rs4409785 | 11 | 95311422 | CEP57 | C/T | 0.934 (0.852-1.025) | 0.1494 | C | 1.12 | opposing |
| rs10790268 | 11 | 118729391 | CXCR5 | A/G | 0.936 (0.842-1.04) | 0.2172 | G | 1.17 | same |
| rs1219414 | 11 | 121797897 | HLA | A/G | 0.975 (0.893-1.064) | 0.5710 | ? | NA |  |
| rs4937362 | 11 | 128492739 | ETS1,FLI1 | T/C | 0.985 (0.903-1.075) | 0.7312 | T | 1.09 | opposing |
| rs73013527 | 11 | 128496952 | ETS1 | T/C | 0.993 (0.905-1.089) | 0.8797 | C | 1.08 | same |
| rs773125 | 12 | 56394954 | CDK2 | A/G | 0.939 (0.857-1.029) | 0.1764 | A | 1.09 | opposing |
| rs1678542 | 12 | 57968715 | KIF5A,PIP4K2C | G/C | 0.967 (0.901-1.038) | 0.3522 | C | 1.12 | same |
| rs1633360 | 12 | 58108052 | CDK4 | T/C | 1.011 (0.929-1.101) | 0.7988 | T | 1.07 | same |
| rs12831974 | 12 | 72724034 | TRHDE | C/T | 0.991 (0.891-1.102) | 0.8655 | ? | 1.27 |  |
| rs3184504 | 12 | 111884608 | SH2B3 | A/G | 0.946 (0.884-1.012) | 0.1066 | A | 1.08 | opposing |
| rs9603616 | 13 | 40368069 | COG6 | T/C | 1.057 (0.966-1.156) | 0.2262 | C | 1.11 | opposing |
| rs11148643 | 13 | 64891197 |  | C/T | 1.034 (0.966-1.106) | 0.3406 | ? | NA |  |
| rs1340317 | 13 | 64930995 |  | T/A | 1.041 (0.973-1.115) | 0.2422 | ? | NA |  |
| rs9571178 | 13 | 64936243 |  | T/C | 1.041 (0.972-1.114) | 0.2496 | ? | NA |  |
| rs9598783 | 13 | 64945174 |  | G/C | 1.038 (0.969-1.111) | 0.2871 | ? | NA |  |
| rs2220327 | 13 | 64946698 |  | C/T | 1.039 (0.971-1.112) | 0.2638 | ? | NA |  |
| rs1340319 | 13 | 64950422 |  | C/T | 1.038 (0.97-1.11) | 0.2867 | ? | NA |  |
| rs3783637 | 14 | 55348118 | GCH1 | T/C | 0.987 (0.862-1.13) | 0.8493 | C | 1.1 | same |
| rs1957895 | 14 | 61908332 | PRKCH | T/G | 1.037 (0.893-1.204) | 0.6314 | G | 1.09 | opposing |
| rs1950897 | 14 | 68760141 | RAD51B | T/C | 1.007 (0.919-1.104) | 0.8763 | T | 1.09 | same |
| rs7155603 | 14 | 75960536 | BATF | A/G | 1.066 (0.957-1.188) | 0.2465 | G | 1.16 | opposing |
| rs2841277 | 14 | 105391005 | PLD4 | T/C | 0.933 (0.853-1.021) | 0.1326 | T | 1.15 | opposing |
| rs8032939 | 15 | 38834033 | RASGRP1 | C/T | 1.021 (0.945-1.104) | 0.5945 | C | 1.13 | same |
| rs8026898 | 15 | 69991417 | LOC145837 | A/G | 0.986 (0.914-1.064) | 0.7204 | A | 1.15 | opposing |
| rs17374222 | 15 | 69995344 | KIF3 | A/C | 1.082 (0.996-1.175) | 0.0609 | A | 1.13 | same |
| rs6496667 | 15 | 90893668 | ZNF774 | A/C | 1.001 (0.901-1.112) | 0.9818 | A | 1.09 | same |
| rs4780401 | 16 | 11839326 | TXNDC11 | T/G | 0.945 (0.865-1.034) | 0.2174 | T | 1.07 | opposing |
| rs7404928 | 16 | 23888840 | PRKCB1 | T/C | 0.925 (0.84-1.018) | 0.1088 | T | 1.08 | opposing |
| rs2280381 | 16 | 86018633 | IRF8 | G/A | 0.982 (0.916-1.052) | 0.6055 | A | 1.12 | same |
| rs13330176 | 16 | 86019087 | IRF8 | T/A | 0.989 (0.911-1.073) | 0.7838 | A | 1.12 | same |
| rs59716545 | 17 | 38031857 | IKZF3,CSF3 | T/G | 1.067 (0.98-1.161) | 0.1330 | G | 1.09 | opposing |
| rs2847297 | 18 | 12797694 | PTPN2 | G/A | 1.06 (0.987-1.138) | 0.1107 | G | 1.1 | same |
| rs2469434 | 18 | 67544046 | CD226 | T/C | 1.036 (0.949-1.132) | 0.4266 | C | 1.11 | opposing |
| rs2002842 | 18 | 76409597 | SALL3 | A/C | 0.969 (0.886-1.06) | 0.4874 | A | 1.61 | opposing |
| rs4239702 | 20 | 44749251 | CD40 | T/C | 1.071 (0.994-1.154) | 0.0709 | C | 1.13 | opposing |
| rs8133843 | 21 | 36738242 | RUNX1,LOC100506403 | A/G | 0.988 (0.903-1.082) | 0.7993 | A | 1.08 | opposing |
| rs2837960 | 21 | 42511918 |  | T/G | 0.955 (0.852-1.069) | 0.4228 | G | 1.05 | same |
| rs11203203 | 21 | 43836186 | UBASH3A | T/C | 1.004 (0.936-1.077) | 0.9196 | T | 1.11 | same |
| rs1893592 | 21 | 43855067 | UBASH3A | C/A | 0.948 (0.878-1.023) | 0.1693 | A | 1.11 | same |
| rs2075876 | 21 | 45709153 | AIRE, PFKL | A/G | 1.051 (0.897-1.232) | 0.5389 | A | 1.18 | same |
| rs11089637 | 22 | 21979096 | UBE2L3,YDJC | C/T | 1.058 (0.965-1.16) | 0.2279 | C | 1.1 | same |
| rs3218251 | 22 | 37545505 | IL2RB | T/A | 1.023 (0.948-1.104) | 0.5576 | A | 1.08 | opposing |
| rs743777 | 22 | 37551607 |  | G/A | 1.039 (0.966-1.117) | 0.3032 | G | 1.09 | same |
| rs909685 | 22 | 39747671 | SYNGR1 | T/A | 1.039 (0.964-1.118) | 0.3164 | A | 1.11 | opposing |

SNPs meeting the nominal significance threshold for AD (P<0.05) are presented first.

Abbreviations: SNP single nucleotide polymorphism; CHR, chromosome; POS, chromosomal position (GRCh37/hg19); EA, effect allele; OA, other allele; RA, risk allele; OR, odds ratio; CI, confidence interval; Effect, same=agonistic effect on both traits of the risk allele, opposing=antagonistic effect on both traits of the risk allele.

Table E4. Association of known Type 1 Diabetes SNPs (GWASCatalog 2014-10) with Atopic Dermatitis in Atopic Dermatitis GWAS cohorts.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | Atopic Dermatitis | | | Type 1 Diabetes | | |
| SNP | CHR | POS | Reported Gene | EA/OA | OR (95% CI) | P-value | RA | OR | Effect |
| rs4505848 | 4 | 123132492 | IL2 | C/T | 1.123 (1.048-1.204) | 0.0010 | C | 1.27\* | same |
| rs6534347 | 4 | 123198435 |  | A/G | 1.115 (1.021-1.218) | 0.0150 | A | 1.3 | same |
| rs17388568 | 4 | 123329362 | ADAD1 | T/C | 1.176 (1.094-1.264) | 1.07E-05 | T | 1.26 | same |
| rs2069762 | 4 | 123377980 | IL2 | G/T | 0.888 (0.822-0.958) | 0.0023 | T | 1.12 | same |
| rs9268645 | 6 | 32408527 | MHC | C/G | 1.149 (1.073-1.231) | 6.80E-05 | G | 1.12\*\* | opposing |
| rs9388489 | 6 | 126698719 | C6orf173 | C/T | 1.072 (1.001-1.147) | 0.0458 | C | 1.17 | same |
| rs4948088 | 7 | 51027194 | COBL | A/C | 1.187 (1.007-1.399) | 0.0411 | C | 1.3 | opposing |
| rs947474 | 10 | 6390450 | PRKCQ | G/A | 1.103 (1.014-1.2) | 0.0229 | G | 1.1 | same |
| rs3741208 | 11 | 2169774 | INS | A/G | 1.112 (1.012-1.221) | 0.0275 | A | 1.25 | same |
| rs11052552 | 12 | 9855958 |  | T/G | 1.089 (1-1.185) | 0.0495 | G | 1.49 | opposing |
| rs4763879 | 12 | 9910164 | CD69 | T/C | 0.913 (0.851-0.98) | 0.0116 | T | 1.09 | opposing |
| rs1701704 | 12 | 56412487 | RAB5B,SUOX,IKZF4, ERBB3,CDK2 | G/T | 1.098 (1.022-1.18) | 0.0107 | G | 1.25 | same |
| rs11171739 | 12 | 56470625 | ERBB3 | G/A | 1.078 (1.007-1.155) | 0.0312 | G | 1.34 | same |
| rs2292239 | 12 | 56482180 | ERBB3 | T/G | 1.094 (1.018-1.175) | 0.0144 | T | 1.28 | same |
| rs2872507 | 17 | 38040763 | ORMDL3 | A/G | 0.917 (0.856-0.981) | 0.0121 | A | 1.1 | opposing |
| rs2269241 | 1 | 64108771 | PGM1 | C/T | 0.947 (0.868-1.032) | 0.2146 | C | 1.1 | opposing |
| rs1983853 | 1 | 85311192 | EDG7 | T/C | 1.079 (0.917-1.269) | 0.3605 | ? | 1.2 |  |
| rs6679677 | 1 | 114303808 | PHTF1,PTPN22 | A/C | 0.916 (0.819-1.024) | 0.1241 | A | 1.82 | opposing |
| rs2476601 | 1 | 114377568 | PTPN22 | A/G | 0.917 (0.82-1.026) | 0.1287 | A | 1.8 | opposing |
| rs7528684 | 1 | 157670816 | FCRL3 | A/G | 0.996 (0.918-1.081) | 0.9289 | A | 1.52 | opposing |
| rs3024505 | 1 | 206939904 | IL10 | T/C | 1.026 (0.937-1.124) | 0.5759 | ? | 1.19 |  |
| rs1534422 | 2 | 12640741 | Intergenic | G/A | 1.002 (0.936-1.072) | 0.9566 | G | 1.08 | same |
| rs2165738 | 2 | 24692809 | Intergenic | C/G | 0.99 (0.915-1.071) | 0.8021 | C | 1.07 | opposing |
| rs478222 | 2 | 25301755 | EFR3B,3NCOA1, C2orf79,CENPO, ADCY3,DNAJC27, POMC,DNMT3A | A/T | 1.06 (0.975-1.153) | 0.1739 | ? | 1.22 |  |
| rs6547853 | 2 | 28646801 | FOSL2 | A/G | 1.088 (0.991-1.194) | 0.0755 | ? | 1.19 |  |
| rs7583877 | 2 | 100460654 | AFF3 | T/C | 1.002 (0.918-1.093) | 0.9726 | C | 1.29 | opposing |
| rs9653442 | 2 | 100825367 | AFF3,LOC150577 | C/T | 0.947 (0.885-1.014) | 0.1176 | C | 1.11 | opposing |
| rs1990760 | 2 | 163124051 | IFIH1 | C/T | 0.986 (0.92-1.057) | 0.6877 | T | 1.18 | same |
| rs3087243 | 2 | 204738919 | CTLA4 | A/G | 0.966 (0.902-1.034) | 0.3203 | A | 1.2 | opposing |
| rs10517086 | 4 | 26085511 | Intergenic | T/C | 1.024 (0.951-1.102) | 0.5365 | T | 1.09 | same |
| rs6897932 | 5 | 35874575 | IL7R | T/C | 0.932 (0.862-1.007) | 0.0756 | C | 1.12 | same |
| rs1445898 | 5 | 35910529 | CAPSL | T/C | 0.975 (0.911-1.044) | 0.4641 | C | 1.12 | same |
| rs17166496 | 5 | 132628884 |  | C/G | 0.995 (0.912-1.085) | 0.9112 | G | 1.3 | same |
| rs9272346 | 6 | 32604372 | MHC | A/G | 0.985 (0.903-1.074) | 0.7325 | G | 5.49 | same |
| rs3757247 | 6 | 90957463 | BACH2 | T/C | 0.935 (0.874-1.001) | 0.0534 | T | 1.13 | opposing |
| rs11755527 | 6 | 90958231 | BACH2 | C/G | 1.02 (0.938-1.108) | 0.6460 | G | 1.13 | opposing |
| rs924043 | 6 | 170379025 | WDR27,C6orf120, PHF10,TCTE3,C6orf208, LOC154449,DLL1,FAM120B,PSMB1,TBP, PCD2 | T/C | 1.052 (0.932-1.187) | 0.4119 | ? | 1.35 |  |
| rs7804356 | 7 | 26891665 | Intergenic | G/A | 1.037 (0.958-1.122) | 0.3700 | ? | 1.14 |  |
| rs550448 | 7 | 28229042 | LOC100128081 | G/A | 0.998 (0.904-1.1) | 0.9601 | ? | 1.32 |  |
| rs12679857 | 8 | 119977337 | TNFRSF11B | A/G | 0.958 (0.878-1.046) | 0.3421 | ? | 1.2 |  |
| rs4871297 | 8 | 123706155 | RP11-973F15.1 | A/G | 0.953 (0.878-1.034) | 0.2482 | A | 1.23 | opposing |
| rs7020673 | 9 | 4291747 | GLIS3 | C/G | 0.941 (0.879-1.007) | 0.0781 | ? | 1.14 |  |
| rs10758593 | 9 | 4292083 | GLIS3 | A/G | 1.061 (0.991-1.136) | 0.0899 | A | 1.13 | same |
| rs61839660 | 10 | 6094697 | IL2RA | A/G | 1.061 (0.943-1.194) | 0.3272 | ? | 1.6 |  |
| rs12722495 | 10 | 6097283 | IL2RA | G/A | 1.077 (0.966-1.201) | 0.1796 | A | 1.61 | opposing |
| rs12251307 | 10 | 6123495 | IL2RA | A/G | 1.095 (0.989-1.213) | 0.0792 | ? | NA |  |
| rs11258747 | 10 | 6472891 | PRKCQ | A/C | 0.967 (0.892-1.048) | 0.4159 | ? | NA |  |
| rs10509540 | 10 | 90023033 | C10orf59 | C/T | 0.945 (0.876-1.02) | 0.1473 | ? | 1.33 |  |
| rs10786436 | 10 | 100300182 |  | T/C | 0.957 (0.88-1.041) | 0.3063 | T | 1.1 | opposing |
| rs1004446 | 11 | 2170143 | IGF2AS | A/G | 0.985 (0.918-1.057) | 0.6709 | G | 1.61 | same |
| rs689 | 11 | 2182224 | INS | A/T | 0.986 (0.887-1.095) | 0.7870 | ? | NA |  |
| rs7111341 | 11 | 2213166 | INS | T/C | 0.994 (0.922-1.072) | 0.8749 | ? | NA |  |
| rs4084127 | 11 | 69596523 |  | A/G | 1.067 (0.97-1.174) | 0.1838 | ? | 1.11 |  |
| rs3764021 | 12 | 9833628 |  | T/C | 1.035 (0.967-1.107) | 0.3226 | C | 1.57 | opposing |
| rs3184504 | 12 | 111884608 | SH2B3 | A/G | 0.946 (0.884-1.012) | 0.1066 | A | 1.3 | opposing |
| rs17696736 | 12 | 112486818 | SH2B3,LNK,TRAFD1,  PTPN11,C12orf30 | G/A | 0.939 (0.877-1.005) | 0.0695 | G | 1.34 | opposing |
| rs614226 | 12 | 120974510 | RNF10,COQ5 | T/C | 0.994 (0.888-1.113) | 0.9162 | C | 1.35 | same |
| rs539514 | 13 | 76326282 | LMO7 | A/T | 1.049 (0.966-1.138) | 0.2546 | ? | 1.43 |  |
| rs10137082 | 14 | 23840033 |  | T/C | 0.969 (0.879-1.069) | 0.5319 | ? | 1.1 |  |
| rs878889 | 14 | 57221139 | Intergenic | A/G | 0.994 (0.879-1.123) | 0.9191 | A | 1.43 | opposing |
| rs1465788 | 14 | 69263599 | Intergenic | T/C | 1.007 (0.933-1.087) | 0.8558 | ? | 1.16 |  |
| rs4900384 | 14 | 98498951 | Intergenic | G/A | 0.961 (0.892-1.036) | 0.3020 | G | 1.09 | opposing |
| rs941576 | 14 | 101306045 | DLK1,MEG3,RTL1,DIO3 | A/G | 1.028 (0.938-1.126) | 0.5544 | A | 1.11 | same |
| rs8035957 | 15 | 38838264 | RASGRP1 | G/A | 1.017 (0.942-1.099) | 0.6608 | G | 1.14 | same |
| rs7171171 | 15 | 38907041 | RASGRP1 | G/A | 0.992 (0.91-1.081) | 0.8509 | G | NA | opposing |
| rs3825932 | 15 | 79235446 | CTSH | A/G | 0.974 (0.906-1.047) | 0.4756 | A | 1.16 | opposing |
| rs12437854 | 15 | 94141833 | RGMA,MCTP2 | T/G | 1.054 (0.874-1.27) | 0.5834 | G | 1.8 | opposing |
| rs12708716 | 16 | 11179873 | CLEC16A,KIAA0350 | C/T | 0.971 (0.905-1.043) | 0.4248 | T | 1.19 | same |
| rs2903692 | 16 | 11238783 | KIAA0350 | T/C | 0.98 (0.913-1.053) | 0.5844 | C | 1.54 | same |
| rs416603 | 16 | 11364079 | C16orf75,PRM3,TNP2 | T/A | 0.97 (0.906-1.038) | 0.3806 | T | 1.06 | opposing |
| rs4788084 | 16 | 28539848 | IL27 | A/G | 1.018 (0.951-1.09) | 0.6032 | G | 1.09 | opposing |
| rs7202877 | 16 | 75247245 | Intergenic | G/T | 0.987 (0.886-1.1) | 0.8140 | G | 1.28 | opposing |
| rs16956936 | 17 | 7633692 | Intergenic | T/C | 0.958 (0.865-1.06) | 0.4030 | ? | 1.09 |  |
| rs2290400 | 17 | 38066240 | ORMDL3 | T/C | 1.056 (0.987-1.13) | 0.1166 | ? | 1.15 |  |
| rs7221109 | 17 | 38770286 | Intergenic | A/G | 0.972 (0.906-1.043) | 0.4286 | ? | 1.05 |  |
| rs2542151 | 18 | 12779947 | PTPN2 | C/A | 1.059 (0.965-1.162) | 0.2265 | C | 1.3 | same |
| rs1893217 | 18 | 12809340 | PTPN2 | C/T | 1.061 (0.967-1.164) | 0.2120 | ? | NA |  |
| rs763361 | 18 | 67531642 | CD226 | A/G | 0.96 (0.897-1.028) | 0.2420 | A | 1.16 | opposing |
| rs2304256 | 19 | 10475652 | TYK2 | T/G | 0.964 (0.894-1.04) | 0.3478 | G | 1.16 | same |
| rs425105 | 19 | 47208481 | Intergenic | G/A | 0.976 (0.891-1.07) | 0.6083 | ? | 1.16 |  |
| rs2281808 | 20 | 1610551 | Intergenic | T/C | 0.973 (0.906-1.046) | 0.4594 | ? | 1.11 |  |
| rs13045180 | 20 | 31531544 | Intergenic | T/C | 0.994 (0.915-1.081) | 0.8957 | T | 1.28 | opposing |
| rs11698685 | 20 | 58895846 | RP5-1043L13.1 | A/G | 0.935 (0.851-1.027) | 0.1595 | G | 1.27 | same |
| rs6027506 | 20 | 58896715 | RP5-1043L13.1 | A/G | 1.042 (0.956-1.135) | 0.3518 | A | 1.22 | same |
| rs11203203 | 21 | 43836186 | UBASH3A | T/C | 1.004 (0.936-1.077) | 0.9196 | ? | NA |  |
| rs9976767 | 21 | 43836390 | UBASH3A | G/A | 0.967 (0.903-1.036) | 0.3394 | G | 1.16 | opposing |
| rs3788013 | 21 | 43841328 | UBASH3A | A/C | 0.98 (0.914-1.049) | 0.5561 | A | 1.1 | opposing |
| rs5753037 | 22 | 30581722 | Intergenic | T/C | 0.953 (0.888-1.022) | 0.1802 | T | 1.1 | opposing |
| rs743777 | 22 | 37551607 | IL2RB | G/A | 1.039 (0.966-1.117) | 0.3032 | G | 1.1 | same |
| rs229541 | 22 | 37591318 | C1QTNF6 | T/C | 0.984 (0.918-1.054) | 0.6409 | T | 1.11 | opposing |

SNPs meeting the nominal significance threshold for AD (P<0.05) are presented first.

Abbreviations: SNP single nucleotide polymorphism; CHR, chromosome; POS, chromosomal position (GRCh37/hg19); EA, effect allele; OA, other allele; RA, risk allele; OR, odds ratio; CI, confidence interval; Effect, same=agonistic effect on both traits of the risk allele, opposing=antagonistic effect on both traits of the risk allele.

\*OR is not reported, instead OR of the reported proxy SNP rs17388568 is given.

\*\*OR and risk allele derived from Bradfield et al. 2011, PLoS Genet.