

Table S1. IV screening of CEBPB and CX3CR1

| gene   | exposure                                            | outcome                                                                      | id.exposure                | id.outcome           | sample size | SNP                                                                              | b        | se       | p        |
|--------|-----------------------------------------------------|------------------------------------------------------------------------------|----------------------------|----------------------|-------------|----------------------------------------------------------------------------------|----------|----------|----------|
| CEBPB  | ENSG00000172216<br>   id:eqtl-a-<br>ENSG00000172216 | Osteoarthritis of the hip (hospital<br>diagnosed)    id:ebi-a-<br>GCST005810 | eqtl-a-<br>ENSG00000172216 | ebi-a-<br>GCST005810 | 11989       | rs149110519                                                                      | -0.00817 | 0.549587 | 0.988136 |
| CEBPB  | ENSG00000172216<br>   id:eqtl-a-<br>ENSG00000172216 | Osteoarthritis of the hip (hospital<br>diagnosed)    id:ebi-a-<br>GCST005810 | eqtl-a-<br>ENSG00000172216 | ebi-a-<br>GCST005810 | 11989       | rs1889236                                                                        | -0.05883 | 0.177709 | 0.740598 |
| CEBPB  | ENSG00000172216<br>   id:eqtl-a-<br>ENSG00000172216 | Osteoarthritis of the hip (hospital<br>diagnosed)    id:ebi-a-<br>GCST005810 | eqtl-a-<br>ENSG00000172216 | ebi-a-<br>GCST005810 | 11989       | rs7210990                                                                        | -0.15977 | 0.345224 | 0.643515 |
| CEBPB  | ENSG00000172216<br>   id:eqtl-a-<br>ENSG00000172216 | Osteoarthritis of the hip (hospital<br>diagnosed)    id:ebi-a-<br>GCST005810 | eqtl-a-<br>ENSG00000172216 | ebi-a-<br>GCST005810 | 11989       | rs913678                                                                         | -0.13577 | 0.181711 | 0.454941 |
| CEBPB  | ENSG00000172216<br>   id:eqtl-a-<br>ENSG00000172216 | Osteoarthritis of the hip (hospital<br>diagnosed)    id:ebi-a-<br>GCST005810 | eqtl-a-<br>ENSG00000172216 | ebi-a-<br>GCST005810 | 11989       | All - Inverse<br>variance<br>weighted<br>(multiplicative<br>random ef-<br>fects) | -0.09969 | 0.026082 | 0.000132 |
| CEBPB  | ENSG00000172216<br>   id:eqtl-a-<br>ENSG00000172216 | Osteoarthritis of the hip (hospital<br>diagnosed)    id:ebi-a-<br>GCST005810 | eqtl-a-<br>ENSG00000172216 | ebi-a-<br>GCST005810 | 11989       | All - MR Eg-<br>ger                                                              | -0.02385 | 0.37506  | 0.955075 |
| CX3CR1 | ENSG00000168329<br>   id:eqtl-a-<br>ENSG00000168329 | Osteoarthritis of the hip (hospital<br>diagnosed)    id:ebi-a-<br>GCST005810 | eqtl-a-<br>ENSG00000168329 | ebi-a-<br>GCST005810 | 11989       | rs11711752                                                                       | -0.48041 | 0.201611 | 0.017178 |
| CX3CR1 | ENSG00000168329<br>   id:eqtl-a-<br>ENSG00000168329 | Osteoarthritis of the hip (hospital<br>diagnosed)    id:ebi-a-<br>GCST005810 | eqtl-a-<br>ENSG00000168329 | ebi-a-<br>GCST005810 | 11989       | rs1354034                                                                        | 0.318191 | 0.411892 | 0.439813 |
| CX3CR1 | ENSG00000168329<br>   id:eqtl-a-<br>ENSG00000168329 | Osteoarthritis of the hip (hospital<br>diagnosed)    id:ebi-a-<br>GCST005810 | eqtl-a-<br>ENSG00000168329 | ebi-a-<br>GCST005810 | 11989       | rs55908509                                                                       | 0.121539 | 0.327433 | 0.710499 |
| CX3CR1 | ENSG00000168329<br>   id:eqtl-a-<br>ENSG00000168329 | Osteoarthritis of the hip (hospital<br>diagnosed)    id:ebi-a-<br>GCST005810 | eqtl-a-<br>ENSG00000168329 | ebi-a-<br>GCST005810 | 11989       | rs7651994                                                                        | -0.20884 | 0.131275 | 0.111648 |

|        |                                                                                         |                                       |                            |                      |       |                                                                                  |          |          |          |
|--------|-----------------------------------------------------------------------------------------|---------------------------------------|----------------------------|----------------------|-------|----------------------------------------------------------------------------------|----------|----------|----------|
| CX3CR1 | ENSG00000168329 Osteoarthritis of the hip (hospital<br>   id:eqtl-a-<br>ENSG00000168329 | diagnosed)    id:ebi-a-<br>GCST005810 | eqtl-a-<br>ENSG00000168329 | ebi-a-<br>GCST005810 | 11989 | rs79589879                                                                       | -0.17882 | 0.182013 | 0.325879 |
| CX3CR1 | ENSG00000168329 Osteoarthritis of the hip (hospital<br>   id:eqtl-a-<br>ENSG00000168329 | diagnosed)    id:ebi-a-<br>GCST005810 | eqtl-a-<br>ENSG00000168329 | ebi-a-<br>GCST005810 | 11989 | All - Inverse<br>variance<br>weighted<br>(multiplicative<br>random ef-<br>fects) | -0.20561 | 0.093691 | 0.028193 |
| CX3CR1 | ENSG00000168329 Osteoarthritis of the hip (hospital<br>   id:eqtl-a-<br>ENSG00000168329 | diagnosed)    id:ebi-a-<br>GCST005810 | eqtl-a-<br>ENSG00000168329 | ebi-a-<br>GCST005810 | 11989 | All - MR Eg-<br>ger                                                              | -0.39601 | 0.153006 | 0.081199 |

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