

Supplementary Table 5. Overview of traits and diseases in colocalization analysis.

| Trait | First author | Accession number GWAS catalog | N total | Cases | Control | Case prop | Download link |
|--|--------------------|-------------------------------|---------|--------|---------|-----------|---|
| Adult-onset asthma | Ferreira MAR et al | GCST007799 | 327253 | 26582 | 300671 | 0.081 | ftp://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/FerreiraMAR_30929738_GCST007799 |
| Primary biliary cirrhosis | Cordell HJ | GCST003129 | 13239 | 2764 | 10475 | 0.209 | ftp://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/CordellHJ_26394269_GCST003129_harmonised/26394269-GCST003129-EFO_1001486-Build37.f.tsv.gz |
| Asthma | Han Y | GCST010042 | 303859 | 64538 | 239321 | 0.212 | ftp://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/HanY_32296059_GCST010042 |
| Systemic Lupus Erythematosus | Julia A | GCST005831 | 16966 | 4943 | 8483 | 0.291 | ftp://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/JuliaA_29848360_GCST005831 |
| Type I diabetes | Forgetta V | GCST010681 | 24840 | 9266 | 15574 | 0.373 | ftp://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/ForgettaV_32005708_GCST010681 |
| IgG level | Scepanovic P | GCST006357 | 1000 | NA | NA | NA | ftp://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/ScepanovicP_30053915_GCST006357 |
| Schizophrenia | Pardinas AF | GCST006803 | 105318 | 40675 | 64643 | 0.386 | https://walters.psychm.cf.ac.uk/clozuk_pg2.met.a.sumstats.txt.gz |
| Rheumatoid arthritis | Eyre S | GCST005569 | 47580 | 13838 | 33742 | 0.290 | ftp://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/EyreS_23143596_GCST005569 |
| Type II diabetes | Mahajan A | GCST007518 | 298957 | 48286 | 250671 | 0.162 | ftp://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/MahajanA_29632382_GCST007518/T2D_European.BMIadjusted.txt |
| Allergic Disease | Ferreira | <u>GCST005038</u> | 360838 | 180129 | 180709 | 0.499 | ftp://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/FerreiraMA_29083406_GCST005038 |
| Alzheimer's disease | Kunkle | NA | 63926 | 21982 | 41944 | 0.344 | https://www.niagads.org/datasets/ng00075 |
| Lymphocyte percentage of white blood cells | Astle WJ | GCST004632 | 171748 | NA | NA | NA | ftp://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/AstleWJ_27863252_GCST004632 |
| Total Cholesterol | Willer CJ | GCST002221 | 94595 | NA | NA | NA | http://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/GCST002001-GCST003000/GCST002221/harmonised/24097068-GCST002221-EFO_0004574-build37.f.tsv.gz |
| Crohn's disease | Liu JZ | GCST003044 | 20883 | 5956 | 14927 | 0.285 | http://www.ibdgenetics.org/downloads.html |
| Ulcerative colitis | Liu JZ | GCST003045 | 27432 | 6968 | 20464 | 0.254 | http://www.ibdgenetics.org/downloads.html |
| Inflammatory bowel disease | Liu JZ | GCST003043 | 34652 | 12882 | 21770 | 0.372 | http://www.ibdgenetics.org/downloads.html |
| HDL cholesterol | Willer CJ | GCST002223 | 94595 | NA | NA | NA | http://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/GCST002001-GCST003000/GCST002223/harmonised/24097068-GCST002223-EFO_0004612-build37.f.tsv.gz |
| LDL | Willer CJ | GCST002222 | 94595 | NA | NA | NA | http://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/GCST002001-GCST003000/GCST002222/harmonised/24097068-GCST002222-EFO_0004611-build37.f.tsv.gz |
| Juvenile idiopathic arthritis | Hinks A | GCST005528 | 15872 | 2816 | 13056 | 0.177 | http://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/GCST005001-GCST006000/GCST005528/harmonised/23603761-GCST005528-EFO_1001999-Build37.f.tsv.gz |
| Osteoarthritis | Tachmazidou I | GCST007092 | 417596 | 39427 | 378169 | 0.094 | http://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/GCST007001-GCST008000/GCST007092/harmonised/30664745-GCST007092-EFO_0002506-build37.f.tsv.gz |
| Chronic kidney disease | Wuttke M | GCST008065 | 625219 | 64164 | 561055 | 0.103 | http://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/GCST008001-GCST009000/GCST008065/CKD_overall_EA_JW_20180223_nstud23.dbgap.txt.gz |

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|--|-----------------------------------|--------------|---------|--------|---------|-------|---|
| Hypertension | Zhu Z | GCST007610 | 458554 | 144793 | 313761 | 0.316 | http://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/GCST007001-GCST008000/GCST007610/ZhuZ_30940143_ukbb.bolt_460K_selfRepWhite.doctor_highbloodpressure.assoc.gz |
| Thyroid cancer | Zhou W | GCST008371 | 407757 | 358 | 407399 | 0.001 | http://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/GCST008001-GCST009000/GCST008371/PheCode_193_SAGE_MACge20.txt.vcf.gz |
| Lung cancer | Rashkin SR | GCST90011812 | 412835 | 2485 | 410350 | 0.006 | http://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/GCST90011001-GCST90012000/GCST90011812/harmonised/32887889-GCST90011812-EFO_0001071-Build37.f.tsv.gz |
| Ovarian cancer | Rashkin SR | GCST90011821 | 411609 | 1259 | 410350 | 0.003 | http://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/GCST90011001-GCST90012000/GCST90011821/harmonised/32887889-GCST90011821-EFO_0001075-Build37.f.tsv.gz |
| Colorectal cancer | Zhou W | GCST008372 | 387318 | 4562 | 382756 | 0.012 | http://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/GCST008001-GCST009000/GCST008372/PheCode_153_SAGE_MACge20.txt.vcf.gz |
| Breast cancer | Rashkin SR | GCST90011804 | 428231 | 17881 | 410350 | 0.042 | http://ftp.ebi.ac.uk/pub/databases/gwas/summary_statistics/GCST90011001-GCST90012000/GCST90011804/harmonised/32887889-GCST90011804-EFO_0000305-Build37.f.tsv.gz |
| COVID-19 (Hospitalized vs. Population) | COVID-19 Host Genetics Initiative | NA | 1887658 | 9986 | 1877672 | 0.005 | https://storage.googleapis.com/covid19-hg-public/20201215/results/20210107/COVID19_HGI_B2_ALL_eur_leave_23andme_20210107_b37.txt.gz |

Trait- tested trait or disease; First author- first author of the publication describing the GWAS of the trait or disease; Accession No- accession number in GWAS Catalog; N total- total number of subjects in the study; Cases- number of case subjects in the study; Controls- number of control subjects in the study; Case prop- proportion of the cases in the total sample; Download link- link for download of the GWAS summary statistics for the given trait or disease.