**Table S42. Complex human traits and diseases associated with variants within brain enhancers and those in LD with variants that reside in brain enhancers that exhibit significant evidence of recent selection**

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| --- | --- | --- | --- |
| **Enhancer ID** | **rsID** | **Traits** | **Metrics** |
| chr1:144533627-144534178 | rs140656307 | Itch intensity from mosquito bite  adjusted by bite size | *F*ST |
| chr1:149984633-149984917 | rs1960306 | Peripheral arterial disease  (traffic-related air pollution interaction) | *nS*L (AFR) |
| chr1:154973335-154973935 | rs191953093 | Post bronchodilator FEV1 | Tajima’s *D* |
| chr1:204386444-204387188 | rs140743827 | Obstructive sleep apnea trait  (apnea hypopnea index) | Tajima’s *D* |
| chr1:204386444-204387188 | rs16849553 | Mean arterial pressure  (alcohol consumption interaction) | Tajima’s *D* |
| chr1:210567003-210567330 | rs4915863 | Calcium levels | *nS*L (EAS) |
| chr1:234748100-234748931 | rs548873184 | Creatinine levels | Tajima’s *D* |
| chr1:234857710-234858181 | rs908327 | Immune response to smallpox (secreted IL-2) | Tajima’s *D* |
| chr1:242108255-242108348 | rs139242087 | Alanine aminotransferase (ALT) levels after remission induction therapy in acute lymphoblastic leukemia (ALL) | H12,  *nS*L (EUR) |
| chr1:246730569-246731007 | rs187680077 | Hepatitis A | Tajima’s *D* |
| chr1:2509702-2510198 | rs191953093 | Post bronchodilator FEV1 | Tajima’s *D* |
| chr1:26946837-26947249 | rs192013290 | Late-onset Alzheimer's disease | Tajima’s *D* |
| chr1:27848725-27849287 | rs72891772 | Coronary artery calcified atherosclerotic plaque  (130 HU threshold) in type 2 diabetes | Tajima’s *D* |
| chr1:49038282-49038602 | rs72891772 | Coronary artery calcified atherosclerotic plaque (130 HU threshold) in type 2 diabetes | Tajima’s *D* |
| chr1:59281873-59282217 | rs139052640 | Post bronchodilator FEV1 | H12 |
| chr1:61918819-61919182 | rs4915863 | Calcium levels | H12 |
| chr1:6661008-6661639 | rs140743827 | Obstructive sleep apnea trait  (apnea hypopnea index) | Tajima’s *D* |
| chr1:6661008-6661639 | rs16849553 | Mean arterial pressure  (alcohol consumption interaction) | Tajima’s *D* |
| chr1:93427945-93428408 | rs648425 | Systolic blood pressure  (alcohol consumption interaction) | Tajima’s *D* |
| chr2:201992378-201992654 | rs113865232 | Fear of minor pain | H12, *F*ST |
| chr2:219271996-219272374 | rs921968 | Mean corpuscular hemoglobin concentration | *F*ST |
| chr2:222826690-222827411 | rs114230339 | Post bronchodilator FEV1 | Tajima’s *D* |
| chr2:223155643-223155970 | rs114971217 | Breast cancer in childhood cancer survivors | *F*ST |
| chr2:232505425-232505799 | rs76999017 | Response to bronchodilator in chronic obstructive pulmonary disease (change in FEV1) | Tajima’s *D* |
| chr2:240868441-240868868 | rs1012307 | Asthma (sex interaction) | *nS*L (AFR) |
| chr2:3699787-3700199 | rs11127159 | Scarlet fever | Tajima’s *D* |
| chr2:3699787-3700199 | rs116739666 | Venous thromboembolism adjusted for  sickle cell variant rs77121243-T | Tajima’s *D* |
| chr2:39893972-39894493 | rs17024218 | Obesity-related traits | Tajima’s *D* |
| chr3:127404993-127405883 | rs181840477 | Post bronchodilator FEV1 | Tajima’s *D*,  *nS*L (EAS) |
| chr3:16181971-16182303 | rs181840477 | Post bronchodilator FEV1 | *nS*L  (EUR, EAS) |
| chr3:181418145-181418802 | rs34308817 | Ankle injury | Tajima’s *D* |
| chr3:32434248-32434406 | rs16865258 | Response to antipsychotic treatment in schizophrenia (working memory) | *nS*L (AFR) |
| chr3:32434248-32434406 | rs57682148 | Subjective well-being | *nS*L (AFR) |
| chr3:66549724-66550124 | rs115317194 | Late-onset Alzheimer's disease | Tajima’s *D* |
| chr4:141217539-141217769 | rs10034465 | Total cholesterol change in response to fenofibrate in statin-treated type 2 diabetes | H12 |
| chr4:162684841-162685083 | rs10034465 | Total cholesterol change in response to fenofibrate in statin-treated type 2 diabetes | *F*ST |
| chr4:190285262-190285611 | rs10034465 | Total cholesterol change in response to fenofibrate in statin-treated type 2 diabetes | *nS*L (AFR, EUR, EAS) |
| chr5:115908516-115909016 | rs73052282 | Mononucleosis | *F*ST |
| chr5:149789263-149789759 | rs7730262 | Coronary artery calcified atherosclerotic plaque  (90 or 130 HU threshold) in type 2 diabetes | Tajima’s *D* |
| chr5:173199242-173199802 | rs17155315 | QT interval | Tajima’s *D* |
| chr5:179635074-179635183 | rs2962508 | Alzheimer disease and age of onset | *nS*L  (EUR, EAS) |
| chr5:180616521-180617006 | rs7734448 | Obesity-related traits | *F*ST |
| chr5:54120977-54121197 | rs185120612 | Sum eosinophil basophil counts,  Eosinophil counts | *F*ST |
| chr5:54120977-54121197 | rs4865875 | Sense of smell | *F*ST |
| chr5:77835986-77836955 | rs185237819 | Post bronchodilator FEV1/FVC ratio | Tajima’s *D* |
| chr6:126112858-126113033 | rs9399510 | Exploratory eye movement dysfunction  in schizophrenia (mean eye scanning length) | H12 |
| chr6:157007979-157008724 | rs149967400 | Cold sores | Tajima’s *D* |
| chr6:157007979-157008724 | rs188657011 | Post bronchodilator FEV1/FVC ratio | Tajima’s *D* |
| chr6:157007979-157008724 | rs75556600 | Post bronchodilator FEV1 | Tajima’s *D* |
| chr6:157342507-157343524 | rs34704616 | Cognitive performance | Tajima’s *D* |
| chr6:157342507-157343524 | rs557966248 | Reticulocyte fraction of red cells, Reticulocyte count, High light scatter reticulocyte count,  High light scatter reticulocyte percentage of red cells | Tajima’s *D* |
| chr6:157342507-157343524 | rs6909762 | Peripheral arterial disease  (traffic-related air pollution interaction) | Tajima’s *D* |
| chr6:157342507-157343524 | rs736088 | Peripheral arterial disease  (traffic-related air pollution interaction) | Tajima’s *D* |
| chr6:163773301-163773556 | rs181238686 | Post bronchodilator FEV1/FVC ratio | *nS*L  (AFR, EUR) |
| chr6:163773301-163773556 | rs190738582 | Post bronchodilator FEV1/FVC ratio | *nS*L  (AFR, EUR) |
| chr6:21587723-21589288 | rs149197912 | Itch intensity from mosquito bite  adjusted by bite size | Tajima’s *D* |
| chr6:21587723-21589288 | rs188657011 | Post bronchodilator FEV1/FVC ratio | Tajima’s *D* |
| chr6:21587723-21589288 | rs2479808 | Diisocyanate-induced asthma | Tajima’s *D* |
| chr6:21587723-21589288 | rs75556600 | Post bronchodilator FEV1 | Tajima’s *D* |
| chr6:30069810-30070038 | rs1111180 | Eosinophil percentage of granulocytes,  Eosinophil percentage of white cells | *nS*L (EUR) |
| chr6:30923441-30923743 | rs17189763 | Conotruncal heart defects (maternal effects) | *nS*L (EUR) |
| chr6:30923441-30923743 | rs184898731 | Mosquito bite size | *nS*L (EUR) |
| chr6:31334700-31334921 | rs16899524 | Beta-2 microglubulin plasma levels | *nS*L (AFR, EUR, EAS) |
| chr6:31334700-31334921 | rs9266359 | Systolic blood pressure,  Diastolic blood pressure | *nS*L (AFR, EUR, EAS) |
| chr6:31334700-31334921 | rs9266406 | Behcet's disease | *nS*L (AFR, EUR, EAS) |
| chr6:31334700-31334921 | rs9266428 | Sum eosinophil basophil counts,  Eosinophil counts | *nS*L (AFR, EUR, EAS) |
| chr6:31761868-31762215 | rs9445732 | Corneal astigmatism | Tajima’s *D* |
| chr6:32427743-32428120 | rs9268831 | Response to hepatitis B vaccine | *nS*L (AFR, EUR, EAS) |
| chr6:32427743-32428120 | rs9268835 | Type 2 diabetes | *nS*L (AFR, EUR, EAS) |
| chr6:32427743-32428120 | rs9268838 | Vogt-Koyanagi-Harada syndrome | *nS*L (AFR, EUR, EAS) |
| chr6:32577297-32577935 | rs41553512 | Tuberculosis | *nS*L (AFR, EUR, EAS) |
| chr6:32577297-32577935 | rs4329147 | Childhood ear infection | *nS*L (AFR, EUR, EAS) |
| chr6:32577297-32577935 | rs660895 | IgA nephropathy, Rheumatoid arthritis,  Rheumatoid arthritis (ACPA-negative) | *nS*L (AFR, EUR, EAS) |
| chr6:32577297-32577935 | rs9270984 | Systemic lupus erythematosus | *nS*L (AFR, EUR, EAS) |
| chr6:32577297-32577935 | rs9271060 | Crohn's disease | *nS*L (AFR, EUR, EAS) |
| chr6:32577297-32577935 | rs9271100 | Systemic lupus erythematosus,  Leprosy, Ulcerative\_colitis | *nS*L (AFR, EUR, EAS) |
| chr6:32577297-32577935 | rs9271192 | Alzheimer's disease (late onset) | *nS*L (AFR, EUR, EAS) |
| chr6:53224045-53224723 | rs149129224 | Tonsillectomy | *F*ST |
| chr6:69471294-69471734 | rs201904861 | Number of common colds | Tajima’s *D* |
| chr6:69803382-69803773 | rs186139562 | Yeast infection | *F*ST |
| chr6:7130548-7130794 | rs181238686 | Post bronchodilator FEV1/FVC ratio | *F*ST |
| chr6:7130548-7130794 | rs190738582 | Post bronchodilator FEV1/FVC ratio | *F*ST |
| chr6:99279577-99279776 | rs9496398 | Neutrophil count | H12 |
| chr7:1140726-1141099 | rs10233459 | Asthma | *nS*L  (EUR, EAS) |
| chr7:130720133-130720826 | rs10265693 | Lung cancer | *F*ST |
| chr7:130741821-130742227 | rs4731742 | Cutaneous malignant melanoma | *F*ST |
| chr7:149648752-149649117 | rs17168526 | Immune response to smallpox (secreted IL-1beta) | *nS*L (AFR) |
| chr7:157691639-157691978 | rs28674970 | Itch intensity from mosquito bite  adjusted by bite size | *nS*L (AFR, EAS) |
| chr7:157956905-157957265 | rs77255239 | Low white blood cell count  (conditioned on rs2814778) | *nS*L (AFR, EUR, EAS) |
| chr7:157956905-157957265 | rs77998448 | Low white blood cell count  (conditioned on rs2814778) | *nS*L (AFR, EUR, EAS) |
| chr7:157956905-157957265 | rs80278508 | Stromal-cell-derived factor 1 alpha levels | *nS*L (AFR, EUR, EAS) |
| chr7:2903227-2903785 | rs146622168 | Post bronchodilator FEV1 | Tajima’s *D* |
| chr7:29217860-29218383 | rs245914 | Psychosis (atypical), Obesity-related traits | Tajima’s *D* |
| chr8:123795111-123795992 | rs182973285 | Male-pattern baldness | Tajima’s *D* |
| chr8:123795111-123795992 | rs4342585 | Axial length | Tajima’s *D* |
| chr8:141108929-141109987 | rs113248907 | Fear of minor pain | Tajima’s *D* |
| chr8:1873813-1874239 | rs201734206 | Asparaginase-induced acute pancreatitis  in acute lymphoblastic leukemia (onset time) | *nS*L (AFR) |
| chr8:68499569-68499804 | rs116501061 | Cold sores | Tajima’s *D* |
| chr10:6171883-6172155 | rs114154155 | Diisocyanate-induced asthma | *nS*L (EAS) |
| chr10:80911539-80911799 | rs12261589 | Obesity-related traits | *nS*L (EAS) |
| chr10:81025991-81026714 | rs74160658 | Chickenpox | Tajima’s *D* |
| chr11:121593077-121593718 | rs79916885 | Rubella | *F*ST |
| chr11:3021368-3021548 | rs12274302 | HIV-1 control | *F*ST |
| chr11:65058176-65058598 | rs187837359 | Tuberculosis | Tajima’s *D* |
| chr11:70245269-70246141 | rs188453278 | Strep throat | Tajima’s *D* |
| chr12:122124782-122125118 | rs143838781 | Total cholesterol change in response to  fenofibrate in statin-treated type 2 diabetes | Tajima’s *D* |
| chr12:122124782-122125118 | rs28667979 | Peripheral arterial disease  (traffic-related air pollution interaction) | Tajima’s *D* |
| chr12:133021534-133022956 | rs182599555 | Rubella | *nS*L (AFR, EUR, EAS) |
| chr12:55364581-55364812 | rs182328274 | Post bronchodilator FEV1/FVC ratio | *F*ST |
| chr12:55364581-55364812 | rs192568883 | Post bronchodilator FEV1/FVC ratio | *F*ST |
| chr13:102784457-102784806 | rs16962638 | Insulin resistance/response | *nS*L (EAS) |
| chr13:102784457-102784806 | rs2607653 | Total cholesterol change in response to fenofibrate in statin-treated type 2 diabetes,  LDL cholesterol change in response to fenofibrate in statin-treated type 2 diabetes | *nS*L (EAS) |
| chr13:110790027-110791241 | rs641862 | Obesity-related traits | Tajima’s *D* |
| chr14:55173516-55173842 | rs28489712 | Response to anti-retroviral therapy (ddI/d4T) in HIV-1 infection (Grade 2 peripheral neuropathy) | *nS*L (EAS) |
| chr14:61969529-61970113 | rs3783782 | Rheumatoid arthritis | *nS*L (AFR) |
| chr14:69618210-69618757 | rs77327054 | Mean platelet volume | Tajima’s *D* |
| chr14:69618210-69618757 | rs79936776 | Platelet count | Tajima’s *D* |
| chr14:95354502-95354744 | rs10162376 | Mild influenza (H1N1) infection | *nS*L (AFR, EUR, EAS) |
| chr15:59469464-59469853 | rs78595738 | Measles | Tajima’s *D* |
| chr15:85455479-85455863 | rs1442808 | Diisocyanate-induced asthma | Tajima’s *D*,  *nS*L (EUR) |
| chr16:22201170-22202123 | rs145049847 | Alzheimer disease and age of onset | Tajima’s *D* |
| chr16:6705372-6705494 | rs202099525 | Mean corpuscular hemoglobin concentration | *nS*L (AFR) |
| chr16:87856343-87856555 | rs76069656 | Triglyceride change in response to fenofibrate  in statin-treated type 2 diabetes | *nS*L (EUR) |
| chr16:87886258-87886670 | rs68149176 | Mean corpuscular volume,  Mean corpuscular hemoglobin | *nS*L (EUR),  *F*ST |
| chr17:1585953-1586309 | rs8071756 | Blood protein levels | *F*ST |
| chr17:198472-198837 | rs8178393 | Post bronchodilator FEV1/FVC ratio in COPD | *nS*L (AFR) |
| chr17:38477236-38480096 | rs7210100 | Prostate cancer | Tajima’s *D* |
| chr17:38477236-38480096 | rs8073525 | Peripheral arterial disease  (traffic-related air pollution interaction) | Tajima’s *D* |
| chr17:38708057-38709216 | rs149001306 | Cerebral amyloid deposition in APOEe4  non-carriers (PET imaging) | Tajima’s *D* |
| chr17:38708057-38709216 | rs533229216 | Platelet distribution width | Tajima’s *D* |
| chr17:66374219-66374806 | rs8073525 | Peripheral arterial disease  (traffic-related air pollution interaction) | Tajima’s *D* |
| chr17:76412850-76413399 | rs73373322 | Iron status biomarkers (iron levels),  Iron status biomarkers (transferrin saturation) | Tajima’s *D* |
| chr18:46324397-46324797 | rs6506284 | Type 2 diabetes | Tajima’s *D* |
| chr18:46451209-46451517 | rs17492699 | Post bronchodilator FEV1/FVC ratio in COPD | Tajima’s *D* |
| chr20:20432950-20433312 | rs558916355 | Platelet distribution width | Tajima’s *D* |
| chr20:44935542-44935954 | rs574551002 | Platelet distribution width | Tajima’s *D* |
| chr20:48809447-48810205 | rs2745761 | Response to irinotecan in  non-small-cell lung cancer | *F*ST |
| chr21:45616099-45616530 | rs4456788 | Chronic inflammatory diseases (ankylosing\_spondylitis, Crohn's disease, psoriasis, primary sclerosing cholangitis, ulcerative colitis) (pleiotropy) | *nS*L (EAS) |
| chr22:24255997-24256450 | rs183544847 | Post bronchodilator FEV1/FVC ratio | Tajima’s *D* |