**Supplementary Table T1: Selected GEO series for ASD and its co-morbidities.**

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| --- | --- | --- | --- | --- | --- |
| Disease | Series Accession ID | Platform | Organism | Tissue Type | Number of Samples |
| ASD | GSE25507 | Affymetrix | *Homo sapiens* | Peripheral blood lymphocytes | 146 |
| GSE7329 | Agilent | *Homo sapiens* | Lymphoblastoid cells | 30 |
| GSE28521 | Illumina | *Homo sapiens* | Brain tissue | 79 |
| GSE26415 | Agilent | *Homo sapiens* | Peripheral blood leucocyte | 84 |
| GSE6575 | Affymetrix | *Homo sapiens* | Blood tissue | 47[[1]](#footnote-1) |
| GSE18123 | Affymetrix | *Homo sapiens* | Peripheral blood | 285 |
| Asthma | GSE19187 | Affymetrix | *Homo sapiens* | Nasal epithelial cells | 241 |
| GSE27011 | Affymetrix | *Homo sapiens* | White blood cells | 54 |
| GSE45251 | Agilent | *Homo sapiens* | Airway smooth muscle cells | 16 |
| GSE470 | Affymetrix | *Homo sapiens* | Epithelial tissue | 12 |
| GSE8190 | Agilent | *Homo sapiens* | Airway epithelial cells | 250 |
| Bacterial & Viral Infection | GSE40396 | Illumina | *Homo sapiens* | Whole blood | 65 |
| GSE42026 | Illumina | *Homo sapiens* | Whole blood | 92 |
| GSE47172 | Affymetrix | *Homo sapiens* | Whole blood | 15 |
| GSE34205 | Affymetrix | *Homo sapiens* | PBMC | 101 |
| Chronic Kidney Disease | GSE43484 | Affymetrix | *Homo sapiens* | Monocytes | 6 |
| GSE41030 | Agilent | *Homo sapiens* | Fibroblasts | 6 |
| GSE38117 | Agilent | *Mus musculus* | Renal tissue | 6 |
| GSE48041 | Agilent | *Mus musculus* | Kidney tissue | 24 |
| GSE15072 | Affymetrix | *Homo sapiens* | Peripheral blood mononuclear cells | 29 |
| Cerebral Palsy | GSE16447 | Affymetrix | *Homo sapiens* | Fibroblasts | 9 |
| GSE31243 | Affymetrix | *Homo sapiens* | Skeletal muscle biopsies | 40 |
| Dilated Cardiomyopathy | GSE29819 | Affymetrix | *Homo sapiens* | Heart tissue | 38 |
| GSE42955 | Affymetrix | *Homo sapiens* | Heart tissue | 29 |
| Ear Infection | GSE49128 | Affymetrix | *Mus musculus* | Middle ear tissue | 17 |
| GSE49122 | Affymetrix | *Mus musculus* | Inner ear tissue | 14 |
| Epilepsy | GSE32534 | Affymetrix | *Homo sapiens* | FFPE peritumoral neurocortex tissue | 10 |
| GSE6834 | Ion channel splice array | *Homo sapiens* | Temporal cortex brain tissue | 201 |
| GSE6614 | Affymetrix | *Mus musculus* | Brain tissue | 28 |
| GSE47516 | Affymetrix | *Mus musculus* | Cerebellum & granule neurons | 21 |
| GSE20977 | Illumina | *Homo sapiens* | CNV | 15 |
| GSE22225 | Affymetrix | *Homo sapiens* | Lymphocytes | 15 |
| GSE16969 | Affymetrix | *Homo sapiens* | Cortical tubers | 10 |
| Inflammatory Bowel Disease | GSE11223 | Agilent | *Homo sapiens* | Colon epithelial biopsies | 202 |
| GSE3365 | Affymetrix | *Homo sapiens* | PBMC | 127 |
| GSE38713 | Affymetrix | *Homo sapiens* | Intestinal mucosa | 43 |
| GSE9452 | Affymetrix | *Homo sapiens* | Colonic mucosa | 26 |
| Muscular Dystrophy | GSE42806 | Affymetrix | *Homo sapiens* | Muscle tissue | 12 |
| GSE36398 | Affymetrix | *Homo sapiens* | Muscle tissue | 50 |
| GSE9397 | Affymetrix | *Homo sapiens* | Muscle biopsies | 20 |
| GSE6011 | Affymetrix | *Homo sapiens* | Muscle biopsies | 37 |
| Schizophrenia | GSE53987 | Affymetrix | *Homo sapiens* | Prefrontal cortex, Striatum, Hippocampus | 1031 |
| GSE27383 | Affymetrix | *Homo sapiens* | PBMC | 72 |
| GSE48072 | Illumina | *Homo sapiens* | Blood | 66 |
| GSE46509 | Affymetrix | *Homo sapiens* | Parvalbumin-immunoreactive neurons | 16 |
| GSE37981 | Affymetrix | *Homo sapiens* | Pyramidal cells in superior temporal cortex | 18 |
| GSE21935 | Affymetrix | *Homo sapiens* | Post-mortem brain tissue | 42 |
| GSE25673 | Affymetrix | *Homo sapiens* | hiPSC-derived neurons | 24 |
| GSE21138 | Affymetrix | *Homo sapiens* | Prefrontal cortex | 59 |
| GSE17612 | Affymetrix | *Homo sapiens* | Post-mortem brain tissue | 51 |
| GSE12654 | Affymetrix | *Homo sapiens* | Prefrontal cortex | 281 |
| Upper Respiratory Infection | GSE24132 | Affymetrix | *Homo sapiens* | Peripheral and cord blood | 12 |
| GSE35940 | Agilent | *Mus musculus* | Lung tissue | 43 |

1. After filtering out samples that are not relevant. [↑](#footnote-ref-1)