

Supplemental Table S1. Search terms used for each of the sixteen identified adult genetic leukoencephalopathies in combination with the following terms added to every search: AND ((neuropsychiatric OR psychiatric OR behavioral OR behavioural OR psychosis OR mood) AND (onset OR diagnosis OR presentation OR disturbance OR changes OR manifestations)).

Genetic leukoencephalopathy	Search terms	Articles found	Pertinent literature
ALSP (HDLS + POLD)	((“adult-onset leukodystrophy” OR “adult-onset leukoencephalopathy” OR “pigmentary orthochromatic leukodystrophy” OR “hereditary diffuse leukoencephalopathy with spheroids” OR CSF1R)) AND (“neuroaxonal spheroids” OR spheroids OR “axonal spheroids” OR “pigmented micro*”)	41	32
AARS2-Related Leukoencephalopathy	(AARS2-related ovarioleukodystrophy) OR (AARS2-Related Leukoencephalopathy) OR ((AARS2 AND (leukoencephalopathy OR leukodystrophy))	7	7
Adult-onset Alexander's Disease	("Adult-onset Alexander's Disease") OR ("AOAD")	5	4
ADLD (autosomal dominant leukodystrophy)	(ADLD) OR (autosomal dominant leukodystrophy) OR (LMNB1-Related) OR (LMNB1)	28	7
Dentatorubral-Pallidolusian Atrophy	((“Dentatorubral-Pallidolusian Atrophy” OR DRPLA OR “Haw River Syndrome” OR “Naito–Oyanagi disease”))	171	19
POLR3-related leukodystrophies	((“POLR3-Related Leukodystrophy”) OR (“4H syndrome”) OR (“Hypomyelination hypogonadotropic hypogonadism hypodontia syndrome”))	7	7
Vanishing White Matter Disease	((“Leukoencephalopathy with vanishing white matter”) OR (“eIF2B-related disorders”) OR (“vanishing white matter disease”) OR (VWMD))	13	9
Cerebrotendinous xanthomatosis	(Cerebrotendinous Xanthomatosis) OR (cerebral cholesterinosis) OR (CTX) OR (sterol 27-hydroxylase deficiency)	406	51
Metachromatic Leukodystrophy	((Metachromatic Leukodystrophy) OR (MLD) OR (ARSA deficiency))	301	70
X-linked Adrenoleukodystrophy (AMN-cerebral subtype)	(X-linked adrenoleukodystrophy) OR (X-ALD)) OR (“ABCD1 gene”)	152	69
CADASIL	(CADASIL) OR (Cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy)) OR (NOTCH3 gene)) OR (NOTCH3)	284	111
CARASIL	(CARASIL) OR (Maeda syndrome) OR (Cerebral autosomal recessive arteriopathy with subcortical infarcts and leukoencephalopathy)	11	6

CARASAL	((Cathepsin A-related arteriopathy with strokes and leukoencephalopathy) OR (CARASAL) OR (CTSA gene) OR (CTSA))	54	1
Globoid Cell Leukodystrophy (Krabbe disease)	("Globoid Cell Leukodystrophy" OR "Krabbe Disease")	37	14
late-onset GM2 Gangliosidosis (Sandhoff and Tay Sachs disease)	(late-onset GM2 Gangliosidosis) OR (Sandhoff disease) OR (Tay Sachs disease)	75	22
Pelizaeus-Merzbacher disease (x-linked spastic paraplegia)/ Pelizaeus-Merzbacher disease-like disorder	("Pelizaeus-Merzbacher disease-like disorder") OR ("Pelizaeus-Merzbacher disease") OR ("x-linked spastic paraplegia")	39	18