



*Supplementary Materials*

# Insights from spatial measures of intolerance to identify pathogenic variants in developmental and epileptic encephalopathies

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**Supplementary Table S1: The description of the groups**

Group	Purpose	Number of Variants
1	Control Group	276 <i>de novo</i> variants derived from epilepsy patients (Epi4K); 454 <i>de novo</i> variants not derived from epilepsy patients
2	Control Group	726 variants from autism spectrum disorders
3	Comparison	1,082,844 variants from DEE group (Epi25K); 2,134,301 variants from general population (DiscovEHR)

**Supplementary Table S2: Structures used for MTR3D calculations**

HGNC Symbol	PDB ID	Source
ANKRD11	99_339_6by9.1.A_5f76d4ace473290e766cc658.pdb	SWISS-MODEL
ATP1A2	26_1020_4ret.2.A_5f7050908ae8c48a4ab2c2fc.pdb	SWISS-MODEL
CACNA1A	1232_1947_5gjv.1.A_5cc87686732c1ef8ec7488d8.pdb	SWISS-MODEL
CACNA1A	3B XK	Experimentally determined
CHD2	259_1022_3mwy.1.A_5f68031dc60d5f991ca20e5a.pdb	SWISS-MODEL
CHD2	306_990_6ftx.1.M_5f68031dc60d5f991ca20e4a.pdb	SWISS-MODEL
DNM1	6DLU	Experimentally determined
DNM1L	4BEJ	Experimentally determined
DNM1L	1_736_5wp9.1.A_5f67078e80434655032fe539.pdb	SWISS-MODEL
DYNC1H1	5NUG	Experimentally determined
DYNC1H1	1444_4646_5nug.1.A_5f686bb9d903f866a892fff7.pdb	SWISS-MODEL
EEF1A2	4_461_6ra9.1.B_5f653e249950e55facbb0951.pdb	SWISS-MODEL
FGF12	4JQ0	Experimentally determined
FOXG1	184_289_6qvw.1.A_5f65713f55ba95672fbdf47a.pdb	SWISS-MODEL
GNAO1	6OIK	Experimentally determined
GNAO1	12_349_4gnk.1.A_5f6440dfb61a4ebe2dc96a6f.pdb	SWISS-MODEL
GRIN1	6IRA	Experimentally determined
GRIN1	25_841_6whs.1.A_5f7061b38ae8c48a4ab396f8.pdb	SWISS-MODEL
GRIN2A	6IRH	Experimentally determined
GRIN2A	32_840_5iou.1.D_5f705ad68ae8c48a4ab33f3e.pdb	SWISS-MODEL
GRIN2B	5EWM	Experimentally determined
GRIN2B	34_845_6whs.1.B_5f67d87fadf0a0f8fbc5565a.pdb	SWISS-MODEL
GRIN2D	49_870_5ide.1.C_5f704e0e8ae8c48a4ab29e27.pdb	SWISS-MODEL

HCN1	6UQF	Experimentally determined
HCN1	94_633_6uqf.1.A_5f7050f98ae8c48a4ab2cb0b.pdb	SWISS-MODEL
HECW2	2LFE	Experimentally determined
HECW2	1181_1566_5tj7.4.A_5f67e458d6c129eb4b1cdefc.pdb	SWISS-MODEL
KCNA1	32_419_5wie.1.B_5f70502e8ae8c48a4ab2c071.pdb	SWISS-MODEL
KCNA2	31_421_6ebk.1.B_5f6588141a1d1f370635a17f.pdb	SWISS-MODEL
KCNB1	29_424_6ebk.1.B_5f66f816b078d19d780f175d.pdb	SWISS-MODEL
KCNQ2	6FEG	Experimentally determined
KCNQ2	70_329_7cr1.1.A_5f6d90cc545f5a798b410058.pdb	SWISS-MODEL
KCNT1	71_1200_5u70.1.D_5f7f1ef24ec6d929eac0c96.pdb	SWISS-MODEL
NACC1	4U2N	Experimentally determined
NACC1	3_124_6w66.1.C_5f65b96d4df9e3a0090caa39.pdb	SWISS-MODEL
NEDD4L	384_969_5xmc.1.A_5f673b25e33774264de5fbed.pdb	SWISS-MODEL
NEDD4L	3JVZ	Experimentally determined
NTRK2	4AT5	Experimentally determined
SCN1A	1790_1942_4dck.1.A_5f6816acab0d00685490c2f3.pdb	SWISS-MODEL
SCN2A	6J8E	Experimentally determined
SCN2A	1788_1929_4j pz.1.B_5e1273f59ffd12a1ae2ee8f2.pdb	SWISS-MODEL
SCN8A	1778_1921_4j pz.1.B_5f68131a033d6797c5fb9d45.pdb	SWISS-MODEL
SLC2A1	4PYP	Experimentally determined
SLC6A1	42_576_4xp4.1.A_5f661e539172bfe4f51b18c8.pdb	SWISS-MODEL
SPTAN1	3FB2	Experimentally determined
SPTAN1	1828_2472_4d1e.1.B_5f6838d52a32a9d4f0792f88.pdb	SWISS-MODEL
STXBP1	3_592_4jeu.1.A_5f6617f21ac1d9a920966478.pdb	SWISS-MODEL
SYNGAP1	252_733_3bxj.2.A_5f70515f8ae8c48a4ab2cf8e.pdb	SWISS-MODEL

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YWHAG	6BYJ	Experimentally determined
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