

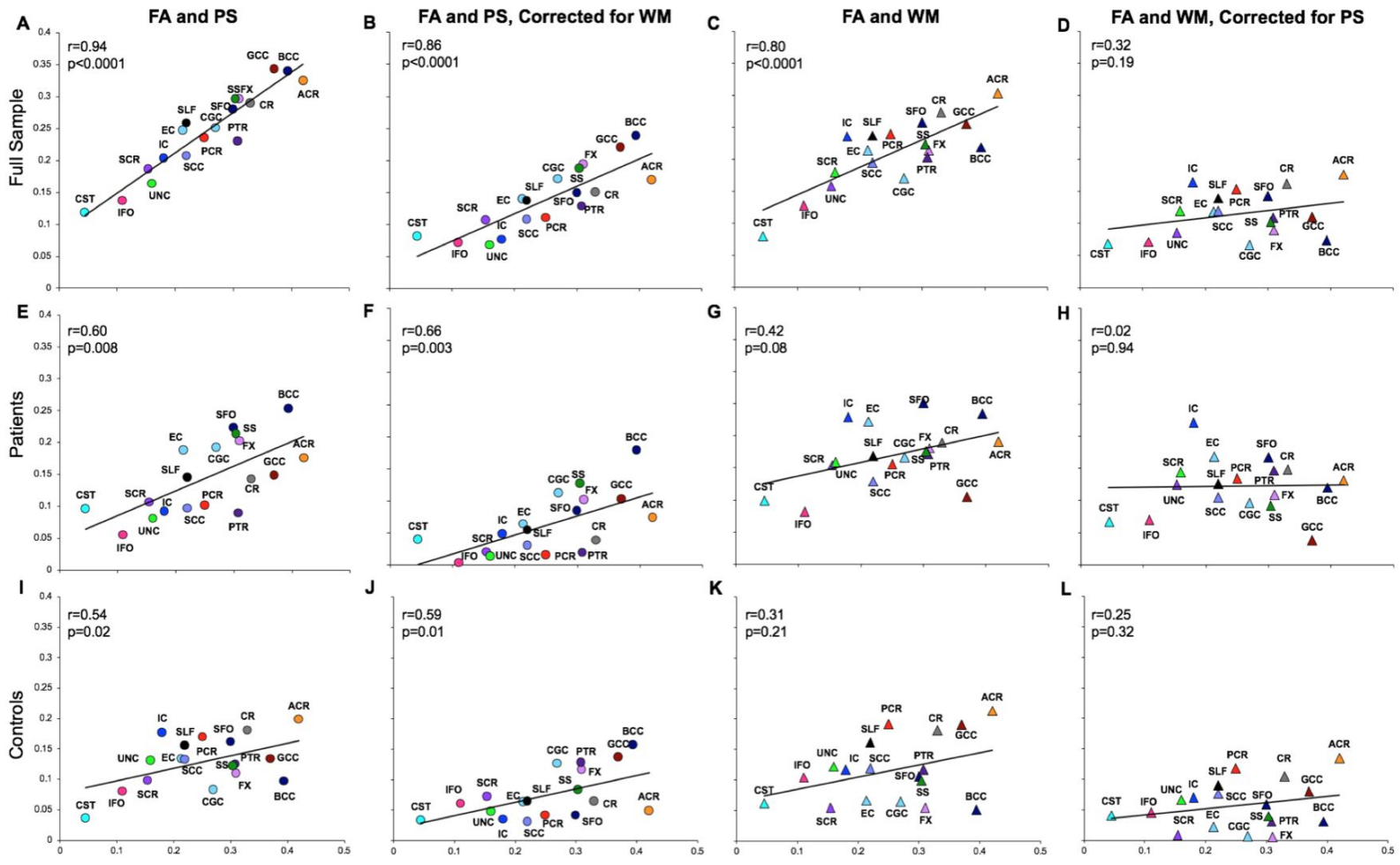
Supplementary Table 1. Effect sizes of schizophrenia reported by ENIGMA (First column) and observed in the current sample.

Region	ENIGMA DTI Effect Size	All Patients versus Controls	Treatment-Resistant versus Controls	Treatment-Responsive versus Controls	Treatment Initiation versus Controls	Treatment-Resistant versus Treatment Initiation	Treatment-Responsive-vs. Treatment Initiation	Treatment-Resistant versus treatment-Responsive
Average FA	0.40	0.69 (p=1.86E-06)	1.20 (p=1E-08)	0.79 (p=1.0E-05)	0.59 (p=0.4)	1.44 (p=6.25E-06)	0.90 (p=5.29E-03)	0.62 (p=0.07)
Anterior Corona Radiata (ACR)	0.42	0.42 (p=2.16E-03)	0.98 (p=1.48E-07)	0.59 (p=7.91E-04)	0.34 (p=0.3)	1.70 (p=3.41E-07)	1.13 (p=5.74E-04)	0.61 (p=0.07)
Anterior Limb of Internal Capsule (ALIC)	0.37	0.45 (p=1.95E-03)	0.79 (p=1.36E-05)	0.63 (p=1.02E-03)	0.08 (p=1)	1.18 (p=2.15E-04)	0.83 (p=9.33E-03)	0.20 (p=0.5)
Body of Corpus Callosum (BCC)	0.39	0.49 (p=4.99E-04)	0.82 (p=4.79E-05)	0.59 (p=2.24E-03)	1.00 (p=0.1)	1.10 (p=1.19E-04)	0.74 (p=1.97E-02)	0.32 (p=0.3)
Cingulum (CGC)	0.27	0.45 (p=1.24E-03)	0.71 (p=4.28E-04)	0.37 (p=3.93E-02)	0.76 (p=0.07)	0.53 (p=9.62E-02)	0.07 (p=8.22E-01)	0.49 (p=0.1)
Corona Radiata (CR)	0.33	0.33 (p=1.77E-02)	0.79 (p=1.30E-05)	0.49 (p=0.007)	0.15 (p=0.5)	1.56 (p=1.19E-06)	0.99 (p=2.33E-03)	0.51 (p=0.1)
Cortico-Spinal Tract (CST)	0.05	0.00 (p=9.91E-01)	0.13 (p=4.91E-01)	0.21 (p=0.2)	-0.02 (p=1)	0.06 (p=7.15E-01)	0.44 (p=1.69E-01)	0.10 (p=0.5)
External Capsule (EC)	0.21	0.41 (p=4.55E-03)	0.71 (p=1.50E-04)	0.50 (p=0.004)	0.11 (p=0.8)	0.86 (p=3.62E-03)	0.60 (p=6.08E-02)	0.30 (p=0.4)
Fornix (FX)	0.31	0.50 (p=4.00E-03)	1.02 (p=1.85E-13)	0.57 (p=0.001)	0.60 (p=0.3)	1.52 (p=2.45E-04)	0.98 (p=2.47E-03)	0.86 (p=0.1)
Genu of Corpus Callosum (GCC)	0.37	0.36 (p=1.20E-02)	0.87 (p=9.21E-06)	0.40 (p=2.37E-02)	0.49 (p=0.5)	1.39 (p=1.07E-05)	0.77 (p=1.68E-02)	0.63 (p=0.07)
Internal Capsule (IC)	0.18	0.16 (p=2.64E-01)	0.38 (p=3.77E-02)	0.26 (p=1.85E-01)	0.14 (p=0.6)	0.75 (p=6.95E-03)	0.50 (p=1.14E-01)	0.17 (p=0.6)
Inferior Frontal Occipital fasciculus (IFO)	0.11	0.12 (p=3.72E-01)	0.27 (p=1.55E-01)	0.10 (p=5.74E-01)	0.12 (p=0.3)	0.09 (p=8.19E-01)	0.45 (p=1.56E-01)	0.38 (p=0.1)
Posterior Corona Radiata (PCR)	0.25	0.17 (p=2.03E-01)	0.39 (p=3.52E-02)	0.27 (p=1.58E-01)	0.11 (p=0.6)	0.85 (p=2.55E-03)	0.56 (p=7.88E-02)	0.21 (p=0.5)
Posterior Limb of Internal Capsule (PLIC)	-0.04	-0.09 (p=1.75E-01)	-0.13 (p=4.78E-01)	-0.13 (p=5.04E-01)	-0.11 (p=0.5)	0.05 (p=2.22E-01)	0.08 (p=4.90E-01)	0.00 (p=1)
Posterior Thalamic Radiation (PTR)	0.31	0.37 (p=9.56E-03)	0.93 (p=3.86E-06)	0.40 (p=2.22E-02)	0.05 (p=1)	1.56 (p=1.43E-05)	0.89 (p=5.92E-03)	0.75 (p=0.02)

Retrolenticular Limb of the Internal Capsule (RLIC)	0.13	0.16 (p=2.39E-01)	0.33 (p=9.14E-02)	0.16 (p=4.02E-01)	0.00 (p=1)	0.46 (p=7.17E-02)	0.19 (p=5.34E-01)	0.22 (p=0.5)
Splenium of Corpus Callosum (SCC)	0.22	0.28 (p=4.98E-02)	0.62 (p=1.52E-03)	0.27 (p=1.45E-01)	0.17 (p=0.8)	0.90 (p=2.49E-03)	0.40 (p=2.03E-01)	0.44 (p=0.2)
Superior Corona Radiata (SCR)	0.15	0.14 (p=2.98E-01)	0.38 (p=4.22E-02)	0.25 (p=1.80E-01)	0.22 (p=0.4)	0.88 (p=1.87E-03)	0.63 (p=4.94E-02)	0.21 (p=0.5)
Superior Fronto-Occipital Fasciculus (SFO)	0.30	0.39 (p=6.51E-03)	0.88 (p=8.57E-07)	0.65 (p=5.65E-04)	0.23 (p=2)	1.86 (p=5.29E-08)	0.66 (p=1.20E-04)	0.35 (p=0.3)
Superior Longitudinal Fasciculus (SLF)	0.22	0.23 (p=1.03E-01)	0.43 (p=2.17E-02)	0.12 (p=5.29E-01)	0.28 (p=2)	0.40 (p=1.50E-01)	0.06 (p=8.53E-01)	0.46 (p=0.2)
Sagittal Striatum (SS)	0.30	0.36 (p=1.02E-02)	0.76 (p=1.13E-04)	0.39 (p=2.48E-02)	0.13 (p=0.8)	1.02 (p=1.85E-03)	0.57 (p=7.60E-02)	0.51 (p=0.1)
Uncinate Fasciculus (UNC)	0.16	0.23 (p=9.93E-02)	0.46 (p=2.11E-02)	0.29 (p=1.12E-01)	-0.03 (p=1)	0.69 (p=4.83E-02)	0.49 (p=1.23E-01)	0.24 (p=0.3)

Supplementary Figure 1. Cognition - white matter relationships are closely linked to white matter regional vulnerability to schizophrenia as presented in (27). **X-axis: Effect sizes of the 21 major white matter regions in ENIGMA, higher values indicate more severe impairment in schizophrenia compared with controls in the ENIGMA meta-analysis. Y-axis: The correlation coefficients between FA of each region and cognitive measures in processing speed (PS) or working memory (WM) in the previous U.S. sample.** A: Relationship between correlation coefficients for nineteen regional FA - processing speed (PS) (y-axis) and regional FA effect sizes of schizophrenia from ENIGMA-Schizophrenia (x-axis, Cohen's d). B: partial correlation coefficients of A after corrected for WM. C: Relationship between correlation coefficients for regional FA values and working memory (WM) (y-axis) and regional FA effect sizes of schizophrenia (x-axis). D: partial correlation coefficients of C after corrected for PS. This was tested in the full sample (A to D) and then patients (E to H) and controls (I to L) separately.

Correlation Coefficients for Regional White Matter FA and PS or WM in U.S. Sample (R-Values)



White Matter Regional FA Effect Sizes of Schizophrenia from ENIGMA-Schizophrenia (Cohen's d)