

Resource Summary Report

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COBRE

RRID:SCR_010482

Type: Tool

Proper Citation

COBRE (RRID:SCR_010482)

Resource Information

URL: http://fcon_1000.projects.nitrc.org/indi/retro/cobre.html

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Description: Data set of raw anatomical and functional MR data from 72 patients with Schizophrenia and 75 healthy controls (ages ranging from 18 to 65 in each group). All subjects were screened and excluded if they had: history of neurological disorder, history of mental retardation, history of severe head trauma with more than 5 minutes loss of consciousness, history of substance abuse or dependence within the last 12 months. Diagnostic information was collected using the Structured Clinical Interview used for DSM Disorders (SCID). A multi-echo MPRAGE (MEMPR) sequence was used with the following parameters: TR/TE/TI = 2530/(1.64, 3.5, 5.36, 7.22, 9.08)/900 ms, flip angle = 7??, FOV = 256x256 mm, Slab thickness = 176 mm, Matrix = 256x256x176, Voxel size =1x1x1 mm, Number of echos = 5, Pixel bandwidth =650 Hz, Total scan time = 6 min. With 5 echoes, the TR, TI and time to encode partitions for the MEMPR are similar to that of a conventional MPRAGE, resulting in similar GM/WM/CSF contrast. Rest data was collected with single-shot full k-space echo-planar imaging (EPI) with ramp sampling correction using the intercommissural line (AC-PC) as a reference (TR: 2 s, TE: 29 ms, matrix size: 64x64, 32 slices, voxel size: 3x3x4 mm³). Slice Acquisition Order: Rest scan - collected in the Axial plane - series ascending - multi slice mode - interleaved MPRAGE - collected in the Sag plane - series interleaved - multi slice mode - single shot The following data are released for every participant: * Resting fMRI * Anatomical MRI * Phenotypic data for every participant including: gender, age, handedness and diagnostic information.

Abbreviations: COBRE

Synonyms: Center for Biomedical Research Excellence, Center for Biomedical Research Excellence (COBRE)

Resource Type: data or information resource, data set

Keywords: resting fmri, anatomical mri, phenotype, gender, age, handedness, diagnosis, adult human, fmri, mri, neuroimaging, mental state assessment, clinical

Related Condition: Schizophrenia, Normal control, Aging

Funding: NCRR 1P20RR021938-01A2

Availability: Creative Commons Attribution-NonCommercial License, Account required

Resource Name: COBRE

Resource ID: SCR_010482

Alternate IDs: nlx_157762

Record Creation Time: 20220129T080259+0000

Record Last Update: 20260912T200330+0000

Ratings and Alerts

No rating or validation information has been found for COBRE.

No alerts have been found for COBRE.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 123 mentions in open access literature.

Listed below are recent publications. The full list is available at [SPARC SAWG](#) .

Volkmer S, et al. (2026) Resting-State Brain Age Predicts Cognitive and Sensorimotor Deficits in Schizophrenia Spectrum Disorders: A Validation & Longitudinal Study. Research square.

Wardell J, et al. (2026) Combining fast and slow fMRI sampling rates can enhance predictive power in resting-state data. NeuroImage, 325, 121579.

Volkmer S, et al. (2026) Normative age-related structural brain deviations underlying psychopathology, cognitive impairment and neurological soft signs in schizophrenia spectrum disorders. Translational psychiatry, 16(1).

Aguirre MC, et al. (2026) Improving Neuropathological Reconstruction Fidelity via AI Slice Imputation. Research square.

González-Peñas J, et al. (2026) Sulcal Widening in Schizophrenia Maps onto Sulcal Hubs and Energy-Synaptic Genes. bioRxiv : the preprint server for biology.

Chen C, et al. (2026) Beyond severity: Mapping cognitive heterogeneity in schizophrenia at the structural level. medRxiv : the preprint server for health sciences.

Chen J, et al. (2026) Dynamic Fusion of Genomics and Functional Network Connectivity in UK Biobank Reveals Schizophrenia-Related SNP Manifolds. *Human brain mapping*, 47(6), e70530.

Nago H, et al. (2026) Synergistic and redundant information dynamics exhibit dissociable alterations across schizophrenia and neurodevelopmental conditions. *Brain informatics*, 13(1).

Cieri F, et al. (2026) Dynamic neurocognitive adaptation: childhood and adult-midlife engagement associated with later-life brain structure and cognition in older adults with and without mild cognitive impairment. *Brain imaging and behavior*, 20(2).

David I, et al. (2026) Distance- and hierarchy-dependent functional dysconnectivity in schizophrenia and its association with cortical microstructure. *NeuroImage. Clinical*, 49, 103958.

Parente F, et al. (2026) Understanding Schizophrenia Pathophysiology via fMRI-Based Information Theory and Multiplex Network Analysis. *Entropy (Basel, Switzerland)*, 28(1).

Vetter CS, et al. (2025) Exploring the predictive value of structural covariance networks for the diagnosis of schizophrenia. *Frontiers in psychiatry*, 16, 1570797.

Dilmore AH, et al. (2025) Medication use is associated with distinct microbial features in anxiety and depression. *Molecular psychiatry*, 30(6), 2545.

Duan K, et al. (2025) aNy-way ICA and its application to estimate cortico-thalamo-cerebellar functional links in schizophrenia. *bioRxiv : the preprint server for biology*.

Yuan X, et al. (2025) Robust multi-task feature selection with counterfactual explanation for schizophrenia identification using functional brain networks. *Frontiers in neuroscience*, 19, 1609547.

Fang K, et al. (2025) Disrupted intersubject variability architecture in structural and functional brain connectomes in major depressive disorder. *Psychological medicine*, 55, e56.

Nie Y, et al. (2025) Characterizing multivariate regional hubs for schizophrenia classification, sex differences, and brain age estimation using explainable AI. *medRxiv : the preprint server for health sciences*.

Iqbal Z, et al. (2025) Explainable Self-Supervised Dynamic Neuroimaging Using Time Reversal. *Brain sciences*, 15(1).

Hahn L, et al. (2025) Mapping Neurochemical Signatures onto Brain Structure for Neurotransmitter-Informed Discrimination of Schizophrenia Patients from Healthy Controls. *medRxiv : the preprint server for health sciences*.

Fang K, et al. (2025) Individualized resting-state functional connectivity abnormalities unveil two major depressive disorder subtypes with contrasting abnormal patterns of abnormality. *Translational psychiatry*, 15(1), 45.