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 intercomissural 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 set, data or information resource

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: 20260801T191203+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 108 mentions in open access literature.

Listed below are recent publications. The full list is available at ASWG .

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.

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).

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

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.

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

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

Yao S, et al. (2025) Connecting genomic results for psychiatric disorders to human brain cell types and regions reveals convergence with functional connectivity. Nature communications, 16(1), 395.

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.

Ghiyamihoor F, et al. (2025) Volumetric Changes in Cerebellar Transverse Zones: Age and Sex Effects in Health and Neurological Disorders. Human brain mapping, 46(6), e70214.

Lyu X, et al. (2025) Weaker top-down cognitive control and stronger bottom-up signaling transmission as a pathogenesis of schizophrenia. Schizophrenia (Heidelberg, Germany), 11(1), 36.

Han S, et al. (2025) Common neuroanatomical differential factors underlying heterogeneous gray matter volume variations in five common psychiatric disorders. Communications biology, 8(1), 238.

Dmitruk E, et al. (2025) Mesoscale differences in brain organization in schizophrenia revealed by topological data analysis. bioRxiv : the preprint server for biology.

Park HW, et al. (2025) Morphometric similarity network-based graph convolutional networks for schizophrenia classification. Scientific reports, 15(1), 36191.

Wang Y, et al. (2025) Revealing multiple biological subtypes of schizophrenia through a data-driven approach. Journal of translational medicine, 23(1), 505.

Xia J, et al. (2025) Disentangling shared and unique brain functional changes associated with clinical severity and cognitive phenotypes in schizophrenia via deep learning. Communications biology, 8(1), 1215.

Sastry NC, et al. (2024) Dynamicity of brain network organization & their community architecture as characterizing features for classification of common mental disorders from whole-brain connectome. Translational psychiatry, 14(1), 268.

Zhao C, et al. (2024) Cross-cohort replicable resting-state functional connectivity in predicting symptoms and cognition of schizophrenia. Human brain mapping, 45(7), e26694.

Ji Y, et al. (2024) Exploring functional dysconnectivity in schizophrenia: alterations in eigenvector centrality mapping and insights into related genes from transcriptional profiles. Schizophrenia (Heidelberg, Germany), 10(1), 37.

Alahmadi A, et al. (2024) The hidden link: Investigating functional connectivity of rarely explored sub-regions of thalamus and superior temporal gyrus in Schizophrenia.

Translational neuroscience, 15(1), 20220356.