Resource Summary Report

Generated by kravitz2 on Sep 17, 2026

BRAID

RRID:SCR_008702
Type: Tool

Proper Citation

BRAID (RRID:SCR_008702)

Resource Information

URL: http://www.rad.upenn.edu/sbia/braid/braid_web/index.html

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Description: Large-scale archive of normalized digital spatial and functional data with an analytical query mechanism. One of its many applications is the elucidation of brain structure-function relationships. BRAID stores spatially defined data from digital brain images which have been mapped into normalized Cartesian coordinates, allowing image data from large populations of patients to be combined and compared. The database also contains neurological data from each patient and a query mechanism that can perform statistical structure-function correlations. The project is developing database technology for the manipulation and analysis of 3-dimensional brain images derived from MRI, PET, CT, etc. BRAID is based on the PostgreSQL server, an object/relational DBMS, which allows a standard relational DBMS to be augmented with application-specific datatypes and operators. The BRAID project is adding operations and datatypes to support querying, manipulation and analysis of 3D medical images, including: * Image Datatypes: BRAID supports a family of 3D image datatypes, each having an abstract type and an implementation type. Abstract types include boolean (for regions of interest), integer, float, vector (for representing morphological changes), tensor (for representing derivatives and standard deviations of vector images) and color. Implementation types at present include line-segment format and voxel array. * Image Operators: BRAID supports addition of images, multiplication (which is interpreted as intersection for boolean images), coercion of an image''s abstract or implementation type to another value, and determination of volumes of regions of interest. * Statistical Operators: A chi-squared test has been added to SQL as an aggregate operator on pairs of boolean values. * Web Interface: A general-purpose Web gateway allows the results of queries that return computed images to be displayed. You can download the BRAID source code 2.0. This version is developed under postgreSQL 7.3.4., THIS RESOURCE IS NO LONGER IN SERVICE. Documented on September 16,2025.

Abbreviations: BRAID

Synonyms: BRAID: Brain Image Database, Brain Image Database

Resource Type: data or information resource, database, image, software resource, source code

Defining Citation: PMID:18467275, PMID:11191696, PMID:9874539

Keywords: brain image, data mining, brain, magnetic resonance, analysis, image display, mri, pet, ct, structure, function, brain

Related Condition: Aging

Funding: NIA R01 AG13743

Availability: THIS RESOURCE IS NO LONGER IN SERVICE

Resource Name: BRAID

Resource ID: SCR_008702

Alternate IDs: nlx_143545, r3d100010227

Alternate URLs: https://doi.org/10.17616/R3F88M

Record Creation Time: 20220129T080248+0000

Record Last Update: 20260912T195708+0000

Ratings and Alerts

No rating or validation information has been found for BRAID.

No alerts have been found for BRAID.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 11 mentions in open access literature.

Listed below are recent publications. The full list is available at kravitz2 .

Bell BI, et al. (2025) Understanding Vaccine Disparities in the Bronx, New York, Through a Mixed Methods Analysis of Community and Provider Perspectives. AJPM focus, 4(4), 100373.

Vozzi F, et al. (2024) Echo state networks for the recognition of type 1 Brugada syndrome from conventional 12-LEAD ECG. Heliyon, 10(3), e25404.

Gutnick DN, et al. (2024) Research protocol for bridging research, accurate information and dialogue (BRAID)-clinical trials: a mixed-methods study of a community-based intervention to improve trust and diversify participation in clinical trials. Frontiers in public health, 12, 1407726.

Phelps GA, et al. (2024) Development of 2nd generation aminomethyl spectinomycins that overcome native efflux in Mycobacterium abscessus. Proceedings of the National Academy of Sciences of the United States of America, 121(2), e2314101120.

Wooten DJ, et al. (2021) MuSyC is a consensus framework that unifies multi-drug synergy metrics for combinatorial drug discovery. Nature communications, 12(1), 4607.

Morales MA, et al. (2021) The BrAID study protocol: integration of machine learning and transcriptomics for brugada syndrome recognition. BMC cardiovascular disorders, 21(1), 494.

Lane TR, et al. (2020) Repurposing Pyramax??, quinacrine and tilorone as treatments for Ebola virus disease. Antiviral research, 182, 104908.

Wang X, et al. (2020) Antitubercular Triazines: Optimization and Intrabacterial Metabolism. Cell chemical biology, 27(2), 172.

Twarog NR, et al. (2020) A critical evaluation of methods to interpret drug combinations. Scientific reports, 10(1), 5144.

MacGregor AJ, et al. (2020) Co-occurrence of hearing loss and posttraumatic stress disorder among injured military personnel: a retrospective study. BMC public health, 20(1), 1076.

Lane TR, et al. (2019) Repurposing the antimalarial pyronaridine tetraphosphate to protect against Ebola virus infection. PLoS neglected tropical diseases, 13(11), e0007890.