Resource Summary Report

Generated by NIF on Apr 17, 2025

Brain Architecture Project

RRID:SCR_004283
Type: Tool

Proper Citation

Brain Architecture Project (RRID:SCR_004283)

Resource Information

URL: http://brainarchitecture.org/

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Description: Evolving portal that will provide interactive tools and resources to allow researchers, clinicians, and students to discover, analyze, and visualize what is known about the brain's organization, and what the evidence is for that knowledge. This project has a current experimental focus: creating the first brainwide mesoscopic connectivity diagram in the mouse. Related efforts for the human brain currently focus on literature mining and an Online Brain Atlas Reconciliation Tool. The primary goal of the Brain Architecture Project is to assemble available knowledge about the structure of the nervous system, with an ultimate emphasis on the human CNS. Such information is currently scattered in research articles, textbooks, electronic databases and datasets, and even as samples on laboratory shelves. Pooling the knowledge across these heterogeneous materials - even simply getting to know what we know - is a complex challenge that requires an interdisciplinary approach and the contributions and support of the greater community. Their approach can be divided into 4 major thrusts: * Literature Curation and Text Mining * Computational Analysis * Resource Development * Experimental Efforts

Synonyms: BrainArchitecture.org, BrainArchitecture

Resource Type: portal, topical portal, data or information resource

Keywords: central nervous system, connectivity, mapping, model, neuroanatomy, organism, post-mortem, structure, nervous system, structure, human, mouse, brain, zebra finch, addiction gene, addiction

Funding: W. M. Keck Foundation ;
NIMH ;

NIDA ;
Crick-Clay Professorship in Biomathematics at CSHL ;
Mathers Foundation ;
Simons Foundation

Availability: Free, Public

Resource Name: Brain Architecture Project

Resource ID: SCR_004283

Alternate IDs: nlx_143664

Record Creation Time: 20220129T080223+0000

Record Last Update: 20250417T065155+0000

Ratings and Alerts

No rating or validation information has been found for Brain Architecture Project.

No alerts have been found for Brain Architecture Project.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 13 mentions in open access literature.

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

Grosu GF, et al. (2023) The fractal brain: scale-invariance in structure and dynamics. Cerebral cortex (New York, N.Y. : 1991), 33(8), 4574.

Hawrylycz M, et al. (2023) A guide to the BRAIN Initiative Cell Census Network data ecosystem. PLoS biology, 21(6), e3002133.

Reiten I, et al. (2023) The efferent connections of the orbitofrontal, posterior parietal, and insular cortex of the rat brain. Scientific data, 10(1), 645.

Zemel BM, et al. (2023) Motor cortex analogue neurons in songbirds utilize Kv3 channels to generate ultranarrow spikes. eLife, 12.

Wang S, et al. (2023) A deep learning-based stripe self-correction method for stitched microscopic images. Nature communications, 14(1), 5393.

Lee BC, et al. (2021) Multimodal cross-registration and quantification of metric distortions in marmoset whole brain histology using diffeomorphic mappings. The Journal of comparative neurology, 529(2), 281.

Bjerke IE, et al. (2020) Database of literature derived cellular measurements from the murine basal ganglia. Scientific data, 7(1), 211.

Lin MK, et al. (2019) A high-throughput neurohistological pipeline for brain-wide mesoscale connectivity mapping of the common marmoset. eLife, 8.

Hamaide J, et al. (2017) Exploring sex differences in the adult zebra finch brain: In vivo diffusion tensor imaging and ex vivo super-resolution track density imaging. NeuroImage, 146, 789.

Majka P, et al. (2016) Towards a comprehensive atlas of cortical connections in a primate brain: Mapping tracer injection studies of the common marmoset into a reference digital template. The Journal of comparative neurology, 524(11), 2161.

Laramée ME, et al. (2014) Visual cortical areas of the mouse: comparison of parcellation and network structure with primates. Frontiers in neural circuits, 8, 149.

Bota M, et al. (2012) Combining collation and annotation efforts toward completion of the rat and mouse connectomes in BAMS. Frontiers in neuroinformatics, 6, 2.

Bohland JW, et al. (2009) A proposal for a coordinated effort for the determination of brainwide neuroanatomical connectivity in model organisms at a mesoscopic scale. PLoS computational biology, 5(3), e1000334.