Resource Summary Report

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Rodent Brain WorkBench

RRID:SCR_002727
Type: Tool

Proper Citation

Rodent Brain WorkBench (RRID:SCR_002727)

Resource Information

URL: http://www.rbwb.org/

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Description: The Rodent Brain WorkBench is the portal to atlases, databases and tools developed by the Neural Systems and Graphics Computing Laboratory (NeSys) at the Centre for Molecular Biology and Neuroscience (CMBN), University of Oslo, Oslo, Norway. The Rodent Brain WorkBench presents a collection of brain mapping and atlasing oriented database applications and tools. The main category of available data is high resolution mosaic images covering complete histological sections through the rat and mouse brain. A highly structured relational database system for archiving, retrieving, viewing, and analysing microscopy and imaging data, aiming at presentation in standardized brain atlas space, is used to present a series of web applications for individual research projects. * Brain Connectivity * Atlases of Mouse Brain Promoter Gene Expression * General Brain Atlas and Navigation Systems * Downloadable tools for 3-DVisualization Open Access: * Atlas 3D * Cerebro-Cerebellar I * Cerebro-Cerebellar II * Neurotransporter Atlas * Rat Hippocampus * Tet-Off Atlas I (PrP) * Tet-Off Atlas II (PrP/CamKII) * Whole Brain Connectivity Atlas The data presented have been produced in collaboration with a large number of laboratories in Europe and the United States.

Abbreviations: rbwb

Synonyms: Rodent Brain Work Bench

Resource Type: atlas, software application, data or information resource, database, data visualization software, software resource, data processing software

Keywords: electron microscopy, image, brain, cerebellar cortex, hippocampus, connectivity, coronal section, high resolution, light microscopy, histology, microscopy, mouse brain,

mouse brain atlas, mpeg, mri, nerve cell, nifti, neuroimaging, rat, rat brain, rodent brain, stereotaxic coordinate, xyz coordinate, gene expression

Funding:

Resource Name: Rodent Brain WorkBench

Resource ID: SCR_002727

Alternate IDs: nif-0000-00424

Record Creation Time: 20220129T080215+0000

Record Last Update: 20250426T055558+0000

Ratings and Alerts

No rating or validation information has been found for Rodent Brain WorkBench.

No alerts have been found for Rodent Brain WorkBench.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 21 mentions in open access literature.

Listed below are recent publications. The full list is available at FDI Lab - SciCrunch.org.

Lillehaug S, et al. (2019) Brain-wide distribution of reporter expression in five transgenic tetracycline-transactivator mouse lines. Scientific data, 6, 190028.

Kuruvilla MV, et al. (2017) Lateral Entorhinal Cortex Lesions Impair Local Spatial Frameworks. Frontiers in systems neuroscience, 11, 30.

Papp EA, et al. (2016) Brain-Wide Mapping of Axonal Connections: Workflow for Automated Detection and Spatial Analysis of Labeling in Microscopic Sections. Frontiers in neuroinformatics, 10, 11.

Biezonski D, et al. (2016) Longitudinal magnetic resonance imaging reveals striatal hypertrophy in a rat model of long-term stimulant treatment. Translational psychiatry, 6(9), e884.

Sergejeva M, et al. (2015) Anatomical landmarks for registration of experimental image data to volumetric rodent brain atlasing templates. Journal of neuroscience methods, 240, 161.

Zakiewicz IM, et al. (2015) Three-Dimensional Histology Volume Reconstruction of Axonal Tract Tracing Data: Exploring Topographical Organization in Subcortical Projections from Rat Barrel Cortex. PloS one, 10(9), e0137571.

Kjonigsen LJ, et al. (2015) Waxholm Space atlas of the rat brain hippocampal region: three-dimensional delineations based on magnetic resonance and diffusion tensor imaging. NeuroImage, 108, 441.

Lillehaug S, et al. (2014) Brainwide distribution and variance of amyloid-beta deposits in tg-ArcSwe mice. Neurobiology of aging, 35(3), 556.

Zakiewicz IM, et al. (2014) Brain-wide map of efferent projections from rat barrel cortex. Frontiers in neuroinformatics, 8, 5.

Zaslavsky I, et al. (2014) Cyberinfrastructure for the digital brain: spatial standards for integrating rodent brain atlases. Frontiers in neuroinformatics, 8, 74.

White NS, et al. (2013) Probing tissue microstructure with restriction spectrum imaging: Histological and theoretical validation. Human brain mapping, 34(2), 327.

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.

Kjonigsen LJ, et al. (2011) Digital atlas of anatomical subdivisions and boundaries of the rat hippocampal region. Frontiers in neuroinformatics, 5, 2.

Prodanov D, et al. (2011) Data ontology and an information system realization for web-based management of image measurements. Frontiers in neuroinformatics, 5, 25.

Zakiewicz IM, et al. (2011) Workflow and atlas system for brain-wide mapping of axonal connectivity in rat. PloS one, 6(8), e22669.

Odeh F, et al. (2011) Atlas of transgenic Tet-Off Ca2+/calmodulin-dependent protein kinase II and prion protein promoter activity in the mouse brain. NeuroImage, 54(4), 2603.

Holmseth S, et al. (2009) The concentrations and distributions of three C-terminal variants of the GLT1 (EAAT2; slc1a2) glutamate transporter protein in rat brain tissue suggest differential regulation. Neuroscience, 162(4), 1055.

Hjornevik T, et al. (2008) Metabolic plasticity in the supraspinal pain modulating circuitry after noxious stimulus-induced spinal cord LTP. Pain, 140(3), 456.

Hjornevik T, et al. (2007) Three-dimensional atlas system for mouse and rat brain imaging data. Frontiers in neuroinformatics, 1, 4.

Leergaard TB, et al. (2007) Topography of the complete corticopontine projection: from

experiments to principal Maps. Frontiers in neuroscience, 1(1), 211.