Resource Summary Report

Generated by NIF on Sep 2, 2026

Atlas3D

RRID:SCR_001808
Type: Tool

Proper Citation

Atlas3D (RRID:SCR_001808)

Resource Information

URL: http://www.nesys.uio.no/Atlas3D/

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Description: A multi-platform visualization tool which allows import and visualization of 3-D atlas structures in combination with tomographic and histological image data. The tool allows visualization and analysis of the reconstructed atlas framework, surface modeling and rotation of selected structures, user-defined slicing at any chosen angle, and import of data produced by the user for merging with the atlas framework. Tomographic image data in NIfTI (Neuroimaging Informatics Technology Initiative) file format, VRML and PNG files can be imported and visualized within the atlas framework. XYZ coordinate lists are also supported. Atlases that are available with the tool include mouse brain structures (3-D reconstructed from The Mouse Brain in Stereotaxic Coordinates by Paxinos and Franklin (2001)) and rat brain structures (3-D reconstructed from The Rat Brain in Stereotaxic Coordinates by Paxinos and Watson (2005)). Experimental data can be imported in Atlas3D and warped to atlas space, using manual linear registration, with the possibility to scale, rotate, and position the imported data. This facilitates assignment of location and comparative analysis of signal location in tomographic images.

Synonyms: Neural Systems and Graphics Computing Laboratory: Atlas3D Software, NeSys Atlas3D

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

Keywords: analysis, brain, histological, mouse, rat, slicing, structure, 3d, tomographic, visualization, neuroimaging, image, magnetic resonance, visualization

Funding: Research Council of Norway ;
NIH ;
NIBIB R01-EB00790;
NCRR U24-RR021382

Availability: Free, Freely available

Resource Name: Atlas3D

Resource ID: SCR_001808

Alternate IDs: nif-0000-10373

Alternate URLs: http://www.nitrc.org/projects/incf_atlas3d

Record Creation Time: 20220129T080209+0000

Record Last Update: 20260829T182103+0000

Ratings and Alerts

No rating or validation information has been found for Atlas3D.

No alerts have been found for Atlas3D.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 18 mentions in open access literature.

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

Müller PM, et al. (2026) Large-scale endoplasmic reticulum membrane solidification spatially organises proteins under thermal or metabolic stress. bioRxiv : the preprint server for biology.

Lu Q, et al. (2025) Characterization of membrane structures regulating primary ciliogenesis by quantitative isotropic ultrastructure imaging. bioRxiv : the preprint server for biology.

Bousquet L, et al. (2025) Life cycle and morphogenetic differentiation in heteromorphic cell types of a cosmopolitan marine microalga. The New phytologist, 245(5), 1969.

Marchesi S, et al. (2025) Biophysical and Molecular mechanisms that control active wetting and tissue fluidification in epithelial tissues. Research square.

Takemura H, et al. (2024) A prominent vertical occipital white matter fasciculus unique to primate brains. Current biology : CB, 34(16), 3632.

Lecordier L, et al. (2023) Apolipoproteins L1 and L3 control mitochondrial membrane dynamics. Cell reports, 42(12), 113528.

Johnson GA, et al. (2021) A multicontrast MR atlas of the Wistar rat brain. NeuroImage, 242, 118470.

Kidiyoor GR, et al. (2020) ATR is essential for preservation of cell mechanics and nuclear integrity during interstitial migration. Nature communications, 11(1), 4828.

Pasquier A, et al. (2019) Lysosomal degradation of newly formed insulin granules contributes to ? cell failure in diabetes. Nature communications, 10(1), 3312.

Insinna C, et al. (2019) Investigation of F-BAR domain PACSIN proteins uncovers membrane tubulation function in cilia assembly and transport. Nature communications, 10(1), 428.

Venditti R, et al. (2019) Molecular determinants of ER-Golgi contacts identified through a new FRET-FLIM system. The Journal of cell biology, 218(3), 1055.

Balagopalan L, et al. (2018) Plasma membrane LAT activation precedes vesicular recruitment defining two phases of early T-cell activation. Nature communications, 9(1), 2013.

Weinhard L, et al. (2018) Microglia remodel synapses by presynaptic trogocytosis and spine head filopodia induction. Nature communications, 9(1), 1228.

Kriebel PW, et al. (2018) Extracellular vesicles direct migration by synthesizing and releasing chemotactic signals. The Journal of cell biology, 217(8), 2891.

Fontaine F, et al. (2017) APOLs with low pH dependence can kill all African trypanosomes. Nature microbiology, 2(11), 1500.

Karreman MA, et al. (2016) Fast and precise targeting of single tumor cells in vivo by multimodal correlative microscopy. Journal of cell science, 129(2), 444.

Hampoelz B, et al. (2016) Pre-assembled Nuclear Pores Insert into the Nuclear Envelope during Early Development. Cell, 166(3), 664.

Vanwalleghem G, et al. (2015) Coupling of lysosomal and mitochondrial membrane permeabilization in trypanolysis by APOL1. Nature communications, 6, 8078.