Resource Summary Report

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NeuroMorpho.Org

RRID:SCR_002145
Type: Tool

Proper Citation

NeuroMorpho.Org (RRID:SCR_002145)

Resource Information

URL: http://neuromorpho.org/index.jsp

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Description: Centrally curated inventory of digitally reconstructed neurons associated with peer-reviewed publications that contains some of the most complete axonal arborizations digitally available in the community. Each neuron is represented by a unique identifier, general information (metadata), the original and standardized ASCII files of the digital morphological reconstruction, and a set of morphometric features. It contains contributions from over 100 laboratories worldwide and is continuously updated as new morphological reconstructions are collected, published, and shared. Users may browse by species, brain region, cell type or lab name. Users can also download morphological reconstructions for research and analysis. Deposition and distribution of reconstruction files ultimately prevents data loss. Centralized curation and annotation aims at minimizing the effort required by data owners while ensuring a unified format. It also provides a one-stop entry point for all available reconstructions, thus maximizing data visibility and impact.

Synonyms: Neuro Morpho, NeuroMorpho.org, NeuroMorpho

Resource Type: service resource, data repository, data or information resource, database, storage service resource

Defining Citation: PMID:17728438, PMID:16552417, PMID:18949582

Keywords: neuron, morphological reconstruction, morphometry, axonal arborization, digital neuronal reconstruction, neuronal reconstruction, neuronal morphology, data sharing, annotation, brain region, neocortex, digital reconstruction, neurogenetics, neurochemistry, neuroscience, neurology, FASEB list

Funding: NINDS R01 NS39600;
MURI ONR N000141010198

Availability: Free, Available for download, Freely available

Resource Name: NeuroMorpho.Org

Resource ID: SCR_002145

Alternate IDs: nif-0000-00006, r3d100010107

Alternate URLs: http://www.nitrc.org/projects/neuromorpho_org, http://neuromorpho.org/, https://doi.org/10.17616/R3WW2K

Record Creation Time: 20220129T080211+0000

Record Last Update: 20260731T042622+0000

Ratings and Alerts

No rating or validation information has been found for NeuroMorpho.Org.

No alerts have been found for NeuroMorpho.Org.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 96 mentions in open access literature.

Listed below are recent publications. The full list is available at nidm-terms .

Carriba P, et al. (2026) Regulation of dendrite and axon growth and arborization by CD40L-reverse signaling: Interrelationships among JNK, PKC, and ERK1/2 signaling pathways. Neural regeneration research, 21(3), 1116.

Makarov R, et al. (2025) DendroTweaks, an interactive approach for unraveling dendritic dynamics. eLife, 13.

Liu L, et al. (2025) Connectivity of single neurons classifies cell subtypes in mouse brains. Nature methods, 22(4), 861.

Doherty DW, et al. (2025) Self-organized and self-sustained ensemble activity patterns in simulation of mouse primary motor cortex. bioRxiv : the preprint server for biology.

Doherty DW, et al. (2025) Enhanced beta power emerges from simulated parkinsonian primary motor cortex. bioRxiv : the preprint server for biology.

Doherty DW, et al. (2025) Enhanced beta power emerges from simulated parkinsonian primary motor cortex. NPJ Parkinson's disease, 11(1), 230.

Ouyang X, et al. (2025) Neurons exploit stochastic growth to rapidly and economically build dense dendritic arbors. Nature communications, 16(1), 5903.

Ouyang X, et al. (2025) Neurons exploit stochastic growth to rapidly and economically build dense radially oriented dendritic arbors. bioRxiv : the preprint server for biology.

Deistler M, et al. (2025) JAXLEY: differentiable simulation enables large-scale training of detailed biophysical models of neural dynamics. Nature methods, 22(12), 2649.

Nelson JSE, et al. (2025) Spatio-temporal dynamics of lateral Na + diffusion in apical dendrites of mouse CA1 pyramidal neurons. bioRxiv : the preprint server for biology.

McSweeney-Davis A, et al. (2025) Alpha_Mesh_Swc: automatic and robust surface mesh generation from the skeleton description of brain cells. Briefings in bioinformatics, 26(3).

Mut F, et al. (2025) Computational Framework for Modeling Effects of Brain Collateral Circulation. International journal for numerical methods in biomedical engineering, 41(12), e70121.

Banovac I, et al. (2025) VENturing into machine learning for the morphological analysis of von Economo neurons. Scientific reports, 15(1), 45033.

Vohra SK, et al. (2025) Fishexplorer: A multimodal cellular atlas platform for neuronal circuit dissection in larval zebrafish. bioRxiv : the preprint server for biology.

Nicoletti M, et al. (2024) Biophysical modeling of the whole-cell dynamics of C. elegans motor and interneurons families. PloS one, 19(3), e0298105.

Puebla I, et al. (2024) Ten simple rules for recognizing data and software contributions in hiring, promotion, and tenure. PLoS computational biology, 20(8), e1012296.

Abdellah M, et al. (2024) Synthesis of geometrically realistic and watertight neuronal ultrastructure manifolds for in silico modeling. Briefings in bioinformatics, 25(5).

Huang LW, et al. (2024) Synaptic interactions between stellate cells and parvalbumin interneurons in layer 2 of the medial entorhinal cortex are organized at the scale of grid cell clusters. eLife, 12.

Wheeler DW, et al. (2024) Hippocampome.org v2.0: a knowledge base enabling data-driven spiking neural network simulations of rodent hippocampal circuits. bioRxiv : the preprint server for biology.

Martin KAC, et al. (2024) A strong direct link from the layer 3/4 border to layer 6 of cat primary visual cortex. Brain structure & function, 229(6), 1397.