Resource Summary Report

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NeuronStudio

RRID:SCR_013798
Type: Tool

Proper Citation

NeuronStudio (RRID:SCR_013798)

Resource Information

URL: http://research.mssm.edu/cnic/tools-ns.html

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Description: A software application which allows reconstruction of neuronal structures from confocal and multi-photon images. NeuronStudio provides tools for manual, semi-manual, and automatic tracing of the dendritic arbor, as well as manual and automatic detection and classification of dendritic spines. Advanced 2D and 3D visualization techniques facilitate the verification of the reconstruction, as well as allowing accurate manual editing. The most current version is Version 0.9.92 which was last updated on November 19, 2009.

Synonyms: NeuronStudio (Beta)

Resource Type: software resource

Keywords: software application, dendritic arbor, dendritic spines, trace, reconstruction, confocal image, multi-photon image

Funding:

Availability: Free, Public, Must cite

Resource Name: NeuronStudio

Resource ID: SCR_013798

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Record Creation Time: 20220129T080318+0000

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Ratings and Alerts

No rating or validation information has been found for NeuronStudio.

No alerts have been found for NeuronStudio.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 373 mentions in open access literature.

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

Zhai S, et al. (2025) State-dependent modulation of spiny projection neurons controls levodopa-induced dyskinesia in a mouse model of Parkinson's disease. bioRxiv : the preprint server for biology.

Chen D, et al. (2024) Microglia govern the extinction of acute stress-induced anxiety-like behaviors in male mice. Nature communications, 15(1), 449.

Ramos-Brossier M, et al. (2024) Slc20a1 and Slc20a2 regulate neuronal plasticity and cognition independently of their phosphate transport ability. Cell death & disease, 15(1), 20.

Busch SE, et al. (2024) Non-allometric expansion and enhanced compartmentalization of Purkinje cell dendrites in the human cerebellum. bioRxiv : the preprint server for biology.

Martínez-Coria H, et al. (2024) Morin improves learning and memory in healthy adult mice. Brain and behavior, 14(2), e3444.

Pastor-Alonso O, et al. (2024) HB-EGF activates EGFR to induce reactive neural stem cells in the mouse hippocampus after seizures. Life science alliance, 7(9).

Ruvalcaba-Delgadillo Y, et al. (2024) Visual EMDR stimulation mitigates acute varied stress effects on morphology of hippocampal neurons in male Wistar rats. Frontiers in psychiatry, 15, 1396550.

Yang ZH, et al. (2024) NEK4 modulates circadian fluctuations of emotional behaviors and synaptogenesis in male mice. Nature communications, 15(1), 9180.

Rajebhosale P, et al. (2024) Neuregulin1 Nuclear Signaling Influences Adult Neurogenesis and Regulates a Schizophrenia Susceptibility Gene Network within the Mouse Dentate Gyrus. The Journal of neuroscience : the official journal of the Society for Neuroscience, 44(43).

Zhang Y, et al. (2024) S-ketamine alleviates depression-like behavior and hippocampal neuroplasticity in the offspring of mice that experience prenatal stress. Scientific reports, 14(1), 26929.

Li Z, et al. (2024) Enriched Environment Reduces Seizure Susceptibility via Entorhinal Cortex Circuit Augmented Adult Neurogenesis. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 11(46), e2410927.

Kerckhof P, et al. (2024) Ventilatory capacity in CLAD is driven by dysfunctional airway structure. EBioMedicine, 101, 105030.

Bjornson KJ, et al. (2024) Increased regional activity of a pro-autophagy pathway in schizophrenia as a contributor to sex differences in the disease pathology. Cell reports. Medicine, 5(7), 101652.

Heuer SE, et al. (2024) Genetic context drives age-related disparities in synaptic maintenance and structure across cortical and hippocampal neuronal circuits. Aging cell, 23(2), e14033.

Oliveira da Silva MI, et al. (2024) ?-Synuclein triggers cofilin pathology and dendritic spine impairment via a PrPC-CCR5 dependent pathway. Cell death & disease, 15(4), 264.

Cararo-Lopes MM, et al. (2024) Overexpression of ?-Klotho isoforms promotes distinct Effects on BDNF-Induced Alterations in Dendritic Morphology. Molecular neurobiology, 61(11), 9155.

Célestine M, et al. (2023) Long term worsening of amyloid pathology, cerebral function, and cognition after a single inoculation of beta-amyloid seeds with Osaka mutation. Acta neuropathologica communications, 11(1), 66.

Heuer SE, et al. (2023) Genetic context drives age-related disparities in synaptic maintenance and structure across cortical and hippocampal neuronal circuits. bioRxiv : the preprint server for biology.

Yang ZH, et al. (2023) Identification of a psychiatric risk gene NISCH at 3p21.1 GWAS locus mediating dendritic spine morphogenesis and cognitive function. BMC medicine, 21(1), 254.

Lazarczyk MJ, et al. (2023) The intracellular domain of major histocompatibility class-I proteins is essential for maintaining excitatory spine density and synaptic ultrastructure in the brain. Scientific reports, 13(1), 6448.