Resource Summary Report

Generated by NIF on Sep 8, 2026

FilamentTracer

RRID:SCR_007366
Type: Tool

Proper Citation

FilamentTracer (RRID:SCR_007366)

Resource Information

URL: http://www.bitplane.com/go/products/filamenttracer

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Description: A software application that automatically detects neurons (dendritic trees, axons and spines), microtubules, and other filament-like structures in 2D, 3D and 4D. Imaris FilamentTracer uses strategies that involve an optimal combination of automated analysis and operator decision. The choice of the best method is an essential element in optimizing efficiency. FilamentTracer allows the choice between four complementary tracing strategies ranging from manual to automatic and utilizes a creation wizard to easily guide the user through the creations steps. It has been specifically designed to deal with the complex problem of spine analysis over time.

Resource Type: data processing software, data visualization software, image analysis software, software application, software resource

Keywords: image analysis, data visualization, tracing, 3d, 2D, 4D

Availability: Available to the research communtiy

Resource Name: FilamentTracer

Resource ID: SCR_007366

Alternate IDs: nif-0000-00301

Record Creation Time: 20220129T080241+0000

Record Last Update: 20260905T132610+0000

Ratings and Alerts

No rating or validation information has been found for FilamentTracer.

No alerts have been found for FilamentTracer.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 81 mentions in open access literature.

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

Han L, et al. (2026) O-GlcNAcase promotes dendritic spine morphogenesis while downregulating their GluA2-containing AMPA receptors. The Journal of biological chemistry, 302(3), 111157.

Ye W, et al. (2026) Rapid neuronal labeling and functional imaging in the developing mouse brain with AAV-PHP.eB. Cell reports methods, 6(7), 101472.

Xie Y, et al. (2025) Astrocyte specification in the mouse septum is shaped by both developmental origin and local signals. Nature neuroscience, 28(8), 1676.

Kühne M, et al. (2025) JMY powers dendritogenesis and is regulated by CaM revealing a general, critical principle in neuromorphogenesis. Communications biology, 8(1), 784.

Hintiryan H, et al. (2025) Distinct subnetworks of the mouse anterior thalamic nuclei. Nature communications, 16(1), 6018.

Zhao Q, et al. (2025) Cholesterol metabolic reprogramming mediates microglia-induced chronic neuroinflammation and hinders neurorestoration following stroke. Nature metabolism, 7(10), 2099.

Ciceri G, et al. (2024) An epigenetic barrier sets the timing of human neuronal maturation. Nature, 626(8000), 881.

Blackie L, et al. (2024) The sex of organ geometry. Nature, 630(8016), 392.

Sgro M, et al. (2024) Microbiome depletion prior to repeat mild TBI differentially alters social deficits and prefrontal cortex plasticity in adolescent and adult rats. iScience, 27(4), 109395.

Ji Y, et al. (2024) EHBP1 Is Critically Involved in the Dendritic Arbor Formation and Is Coupled to Factors Promoting Actin Filament Formation. The Journal of neuroscience : the official journal of the Society for Neuroscience, 44(6).

Funahashi Y, et al. (2024) Signal flow in the NMDA receptor-dependent phosphoproteome regulates postsynaptic plasticity for aversive learning. Science signaling, 17(853), eado9852.

Meyer-Arndt L, et al. (2023) Inflammatory Cytokines Associated with Multiple Sclerosis Directly Induce Alterations of Neuronal Cytoarchitecture in Human Neurons. Journal of

neuroimmune pharmacology : the official journal of the Society on NeuroImmune Pharmacology, 18(1-2), 145.

Calderon L, et al. (2022) Cohesin-dependence of neuronal gene expression relates to chromatin loop length. eLife, 11.

Feng Z, et al. (2022) IRSp53 promotes postsynaptic density formation and actin filament bundling. The Journal of cell biology, 221(8).

Frei IC, et al. (2022) Adipose mTORC2 is essential for sensory innervation in white adipose tissue and whole-body energy homeostasis. Molecular metabolism, 65, 101580.

Miller AM, et al. (2022) Glucocorticoid regulation of diurnal spine plasticity in the murine ventromedial prefrontal cortex. Journal of neuroendocrinology, 34(12), e13212.

Vagionitis S, et al. (2022) Clusters of neuronal neurofascin prefigure the position of a subset of nodes of Ranvier along individual central nervous system axons in vivo. Cell reports, 38(7), 110366.

Nam H, et al. (2022) Presenilin 2 N141I mutation induces hyperactive immune response through the epigenetic repression of REV-ERB?. Nature communications, 13(1), 1972.

Yamahashi Y, et al. (2022) Phosphoproteomic of the acetylcholine pathway enables discovery of the PKC-?-PIX-Rac1-PAK cascade as a stimulatory signal for aversive learning. Molecular psychiatry, 27(8), 3479.

Wu X, et al. (2022) Synaptic hyperexcitability of cytomegalic pyramidal neurons contributes to epileptogenesis in tuberous sclerosis complex. Cell reports, 40(3), 111085.