Resource Summary Report

Generated by SPARC SAWG on Sep 16, 2026

Microns Explorer

RRID:SCR_021678
Type: Tool

Proper Citation

Microns Explorer (RRID:SCR_021678)

Resource Information

URL: https://www.microns-explorer.org/

Proper Citation: Microns Explorer (RRID:SCR_021678)

Description: Portal to release connectivity and functional imaging data collected by consortium of laboratories led by groups at Allen Institute for Brain Science, Princeton University, and Baylor College of Medicine, with support from broad array of teams, coordinated and funded by IARPA MICrONS program. Data include large scale electron microscopy based reconstructions of cortical circuitry from mouse visual cortex, with corresponding functional imaging data from those same neurons.

Synonyms: MICrONS Explorer

Resource Type: data or information resource, portal, topical portal

Keywords: Connectome, mouse, cortex, electron microscopy, functional imaging data, cortical circuitry reconstruction, neuron

Funding: IARPA MICrONS

Availability: Free, Freely available

Resource Name: Microns Explorer

Resource ID: SCR_021678

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Record Creation Time: 20220129T080356+0000

Record Last Update: 20260912T200000+0000

Ratings and Alerts

No rating or validation information has been found for Microns Explorer.

No alerts have been found for Microns Explorer.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 19 mentions in open access literature.

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

Zhang C, et al. (2026) Cell-type-specific parallel pathways in the canonical cortical microcircuit. bioRxiv : the preprint server for biology.

Ito S, et al. (2026) Deep-learning-assisted simulation of a cortical circuit: integrating anatomy, physiology and function. bioRxiv : the preprint server for biology.

Kole K, et al. (2026) Robust activity-dependent mitochondrial calcium dynamics at the AIS is dispensable for action potential generation. The Journal of physiology, 604(7), 3032.

Biswas R, et al. (2026) State-Dependent Organization of Microscale Functional Circuitry in Visual Cortex. bioRxiv : the preprint server for biology.

Bhardwaj A, et al. (2026) NucleoNet and DropNet: Generalist deep learning models for instance segmentation of nuclei and lipid droplets from electron microscopy images. bioRxiv : the preprint server for biology.

Xu YKT, et al. (2026) Brain-wide mapping of oligodendrocyte organization, oligodendrogenesis, and myelin injury. Cell, 189(5), 1535.

, et al. (2025) Functional connectomics spanning multiple areas of mouse visual cortex. Nature, 640(8058), 435.

Smets NG, et al. (2024) Perivascular spaces around arteries exceed perivenous spaces in the mouse brain. Scientific reports, 14(1), 17655.

Falahati H, et al. (2024) Ectopic Reconstitution of a Spine-Apparatus Like Structure Provides Insight into Mechanisms Underlying Its Formation. bioRxiv : the preprint server for biology.

Lu C, et al. (2024) Diffusion-based deep learning method for augmenting ultrastructural imaging and volume electron microscopy. Nature communications, 15(1), 4677.

Kenney M, et al. (2024) The Brain Image Library: A Community-Contributed Microscopy Resource for Neuroscientists. Scientific data, 11(1), 1212.

Wildenberg G, et al. (2023) Isochronic development of cortical synapses in primates and mice. Nature communications, 14(1), 8018.

Abdellah M, et al. (2023) Ultraliser: a framework for creating multiscale, high-fidelity and geometrically realistic 3D models for in silico neuroscience. Briefings in bioinformatics, 24(1).

Kole K, et al. (2022) Parvalbumin basket cell myelination accumulates axonal mitochondria to internodes. Nature communications, 13(1), 7598.

Buchanan J, et al. (2022) Oligodendrocyte precursor cells ingest axons in the mouse neocortex. Proceedings of the National Academy of Sciences of the United States of America, 119(48), e2202580119.

Turner NL, et al. (2022) Reconstruction of neocortex: Organelles, compartments, cells, circuits, and activity. Cell, 185(6), 1082.

Trepka EB, et al. (2022) Functional interactions among neurons within single columns of macaque V1. eLife, 11.

Mahalingam G, et al. (2022) A scalable and modular automated pipeline for stitching of large electron microscopy datasets. eLife, 11.

Zhuang J, et al. (2021) Laminar distribution and arbor density of two functional classes of thalamic inputs to primary visual cortex. Cell reports, 37(2), 109826.