

Resource Summary Report

Generated by [Kravitz](#) on Sep 10, 2026

Virtual Fly Brain

RRID:SCR_004229

Type: Tool

Proper Citation

Virtual Fly Brain (RRID:SCR_004229)

Resource Information

URL: <http://www.virtualflybrain.org>

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Description: An interactive tool for neurobiologists to explore the detailed neuroanatomy, neuron connectivity and gene expression of the adult *Drosophila melanogaster* brain.

Abbreviations: VFB

Synonyms: VirtualFlyBrain.org, VFB, Virtual Fly Brain

Resource Type: atlas, data or information resource, expression, neurons

Defining Citation: [PMID:22180411](#)

Keywords: *Drosophila*, brain, neurons, innervation patterns, gene expression, transgene expression, phenotypes, neuroanatomy, neurobiology

Funding: Wellcome Trust

Resource Name: Virtual Fly Brain

Resource ID: SCR_004229

Alternate IDs: nlx_143644

Alternate URLs: http://www.virtualflybrain.org/site/vfb_site/home.htm

Record Creation Time: 20220129T080223+0000

Record Last Update: 20260905T133039+0000

Ratings and Alerts

No rating or validation information has been found for Virtual Fly Brain.

No alerts have been found for Virtual Fly Brain.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 47 mentions in open access literature.

Listed below are recent publications. The full list is available at [Kravitz](#) .

Deutsch D, et al. (2025) Sexually-dimorphic neurons in the Drosophila whole-brain connectome. Research square.

Jiang H, et al. (2025) A parallelly distributed microscope and software system for scalable high-throughput multispectral 3D imaging. bioRxiv : the preprint server for biology.

Deutsch D, et al. (2025) Sexually-dimorphic neurons in the Drosophila whole-brain connectome. bioRxiv : the preprint server for biology.

Yamakoshi H, et al. (2025) Mating status-dependent dopaminergic modulation of auditory sensory neurons in Drosophila. iScience, 28(9), 113232.

Fiala A, et al. (2024) What do the mushroom bodies do for the insect brain? Twenty-five years of progress. Learning & memory (Cold Spring Harbor, N.Y.), 31(5).

Schlegel P, et al. (2024) Whole-brain annotation and multi-connectome cell typing of Drosophila. Nature, 634(8032), 139.

Liu J, et al. (2024) Spatiotemporal changes in Netrin/Dscam1 signaling dictate axonal projection direction in Drosophila small ventral lateral clock neurons. eLife, 13.

Yang HH, et al. (2024) Fine-grained descending control of steering in walking Drosophila. Cell, 187(22), 6290.

Eichler K, et al. (2024) Somatotopic organization among parallel sensory pathways that promote a grooming sequence in Drosophila. eLife, 12.

Meschi E, et al. (2024) Compensatory enhancement of input maintains aversive dopaminergic reinforcement in hungry Drosophila. Neuron, 112(14), 2315.

Imoto K, et al. (2024) Neural-circuit basis of song preference learning in fruit flies. iScience, 27(7), 110266.

Taisz I, et al. (2023) Generating parallel representations of position and identity in the olfactory system. Cell, 186(12), 2556.

Eichler K, et al. (2023) Somatotopic organization among parallel sensory pathways that promote a grooming sequence in *Drosophila*. *bioRxiv* : the preprint server for biology.

Galili DS, et al. (2022) Connectomics and the neural basis of behaviour. *Current opinion in insect science*, 54, 100968.

Marin EC, et al. (2020) Connectomics Analysis Reveals First-, Second-, and Third-Order Thermosensory and Hygrosensory Neurons in the Adult *Drosophila* Brain. *Current biology* : CB, 30(16), 3167.

Otto N, et al. (2020) Input Connectivity Reveals Additional Heterogeneity of Dopaminergic Reinforcement in *Drosophila*. *Current biology* : CB, 30(16), 3200.

Bates AS, et al. (2020) The natverse, a versatile toolbox for combining and analysing neuroanatomical data. *eLife*, 9.

Palazzo O, et al. (2020) Identification of FoxP circuits involved in locomotion and object fixation in *Drosophila*. *Open biology*, 10(12), 200295.

Scheffer LK, et al. (2020) A connectome and analysis of the adult *Drosophila* central brain. *eLife*, 9.

Hampel S, et al. (2020) Distinct subpopulations of mechanosensory chordotonal organ neurons elicit grooming of the fruit fly antennae. *eLife*, 9.