Resource Summary Report

Generated by ASWG on Apr 29, 2025

Flybrain at Stanford

RRID:SCR_001877
Type: Tool

Proper Citation

Flybrain at Stanford (RRID:SCR_001877)

Resource Information

URL: http://flybrain.stanford.edu/

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Description: Project content including raw image data, neuronal tracings, image registration tools and analysis scripts covering three manuscripts: Comprehensive Maps of DrosophilaHigher Olfactory Centres : Spatially Segregated Fruit and Pheromone Representation which uses single cell labeling and image registration to describe the organization of the higher olfactory centers of Drosophila; Diversity and wiring variability of olfactory local interneurons in the Drosophila antennal lobe which uses single cell labeling to describe the organization of the antennal lobe local interneurons; and Sexual Dimorphism in the Fly Brain which uses clonal analysis and image registration to identify a large number of sex differences in the brain and VNC of Drosophila. Data * Raw Data of Reference Brain (pic, amira) (both seed and average) * Label field of LH and MB calyx and surfaces for these structures * Label field of neuropil of Reference Brain * Traces (before and after registration). Neurolucida, SWC and AmiraMesh lineset. * MB and LH Density Data for different classes of neuron. In R format and as separate amira files. * Registration files for all brains used in the study * MBLH confocal images for all brains actually used in the study (Biorad pic format) * Sample confocal images for antennal lobe of every PN class * Confocal stacks of GABA stained ventral PNs Programs * ImageJ plugins (Biorad reader /writer/Amira reader/writer/IGS raw Reader) * Binary of registration, warp and gregxform (macosx only, others on request) * Simple GUI for registration tools (macosx only at present) * R analysis/visualization functions * Amira Script to show examples of neuronal classes The website is a collaboration between the labs of Greg Jefferis and Liqun Luo and has been built by Chris Potter and Greg Jefferis. The core Image Registration tools were created by Torsten Rohlfing and Calvin Maurer.

Abbreviations: Flybrain(at)Stanford, FlybrainatStanford

Synonyms: Flybrain (at) Stanford - A warped brain is a good thing, Flybrain (at) Stanford

Resource Type: data processing software, software resource, image collection, data or information resource, image analysis software, software application

Defining Citation: PMID:17382886

Keywords: brain, cell, neuron, neuropil, olfactory, pheromone, confocal image, antennal lobe, axon trace, forum, neuronal tracing, image registration tool, analysis script, single-cell labeling, image registration, mushroom body, lateral horn, olfactory receptor neuron

Funding: Wellcome Trust WT076726;
Damon Runyon Cancer Research Foundation DRG-1766-03;
NIAAA AA05965;
NIAAA AA13521;
NIDCD R01-DC005982

Availability: You need to register to view some content and to download the raw image data, Neuronal tracings, Image registration tools and analysis scripts that we used. Registration is free and automatic.

Resource Name: Flybrain at Stanford

Resource ID: SCR_001877

Alternate IDs: nif-0000-10437

Record Creation Time: 20220129T080210+0000

Record Last Update: 20250428T052911+0000

Ratings and Alerts

No rating or validation information has been found for Flybrain at Stanford.

No alerts have been found for Flybrain at Stanford.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 6 mentions in open access literature.

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

Parekh R, et al. (2013) Neuronal morphology goes digital: a research hub for cellular and system neuroscience. Neuron, 77(6), 1017.

Masse NY, et al. (2012) A mutual information approach to automate identification of neuronal clusters in Drosophila brain images. Frontiers in neuroinformatics, 6, 21.

Ito K, et al. (2010) Technical and organizational considerations for the long-term maintenance and development of digital brain atlases and web-based databases. Frontiers in systems neuroscience, 4, 26.

Cachero S, et al. (2010) Sexual dimorphism in the fly brain. Current biology : CB, 20(18), 1589.

Chou YH, et al. (2010) Diversity and wiring variability of olfactory local interneurons in the Drosophila antennal lobe. Nature neuroscience, 13(4), 439.

Jefferis GS, et al. (2007) Comprehensive maps of Drosophila higher olfactory centers: spatially segregated fruit and pheromone representation. Cell, 128(6), 1187.