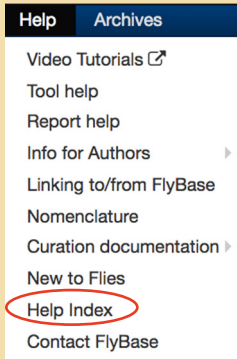


## Need Help?

Links to all Help Documents now in one handy location. FlyBase Help Docs have been updated and can all be accessed from the FlyBase Help Index.



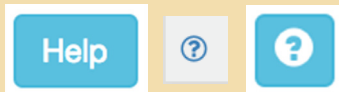
The screenshot shows the FlyBase website interface. At the top left is a fly icon. Below it are links for 'FlyBase Home Page', 'Wiki Home Page', 'Gene Wiki', 'FlyBase Help and Documentation', 'Wiki help', 'Recent changes', and 'Random page'. The main heading is 'FlyBase:FlyBase Help Index'. Below this is a 'Contents [hide]' section with a numbered list: 1 Video Tutorials, 2 Report Help, 3 Curation Documentation, 4 Tools and Downloads Documentation, 5 Information for Authors, and 6 Other Help.



The screenshot shows a 'Help' dropdown menu with the following items: Video Tutorials, Tool help, Report help, Info for Authors, Linking to/from FlyBase, Nomenclature, Curation documentation, New to Files, Help Index (circled in red), and Contact FlyBase.

Navigate to the Help Index or directly to various help pages from the “Help” dropdown menu on most pages.

Or access help directly from links on tool and report pages where you see these icons.

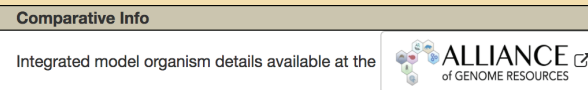


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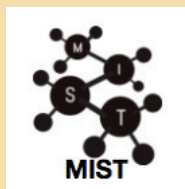
FlyBase is supported by a grant from the National Human Genome Research Institute at the U.S. National Institutes of Health #U41 HG000739. Support is also provided by the British Medical Research Council.

## New Links

The **Alliance of Genome Resources**, or simply the **Alliance**, is the union of six model organism databases (FlyBase, WormBase, Saccharomyces Genome Database, Rat Genome Database, Mouse Genome Database and Zebrafish Information Network) as well as the Gene Ontology Consortium. The Alliance aims to integrate diverse genomic data allowing efficient retrieval of information for the advancement of genome biology and improvement of human health. The Alliance webpage can be accessed by clicking on the above icon from the FlyBase homepage or from the “Comparative Info” section of gene reports, pictured below.

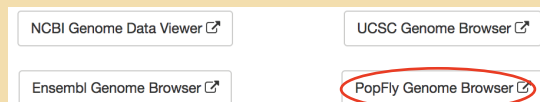


The 'Comparative Info' section of a gene report, showing the text 'Integrated model organism details available at the' followed by the Alliance of Genome Resources logo and a link icon.

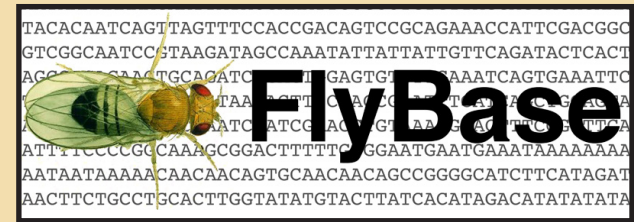


The **Molecular Interaction Search Tool**, or **MIST**, integrates genetic and physical interaction data from fly, yeast, nematode, zebrafish, frog, mouse and rat model organisms as well as human. Access MIST from the FlyBase homepage by clicking on the pictured icon. Direct gene-specific links from FlyBase gene reports are coming soon.

**PopFly** is a population genomics oriented genome browser that can be accessed from the “Other Genome Views” section of a FlyBase gene report pictured below. PopFly allows visualization of genetic variation data within and among the *Drosophila melanogaster* genome sequences compiled in the Drosophila Genome Nexus or DGN.

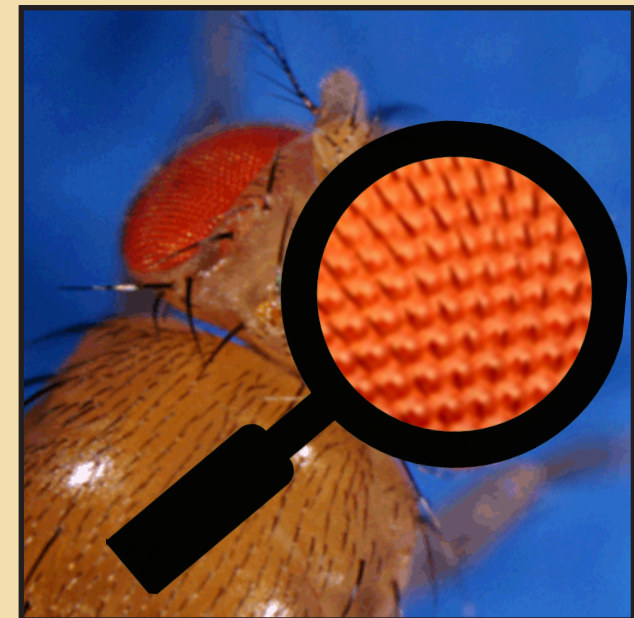


A row of four buttons: 'NCBI Genome Data Viewer', 'UCSC Genome Browser', 'Ensembl Genome Browser', and 'PopFly Genome Browser' (circled in red).



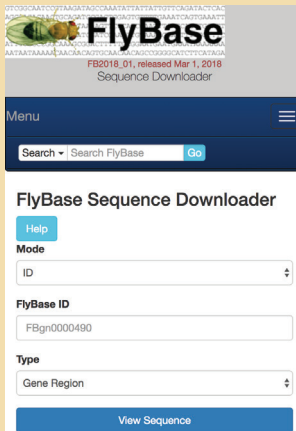
## Feature

## Focus



www.flybase.org

# Sequence Downloader



The **Sequence Downloader** tool (accessed from the “Tools” drop-down menu on the blue navigation bar on most pages) allows the retrieval of sequence data by FlyBase ID or genomic location in 3 modes of operation. **ID mode** accepts IDs for genes (FBgn), transcripts (FBtr), polypeptides (FBpp), clones (FBcl), sequence features (FBsf) and recombinant constructs (FBtp).

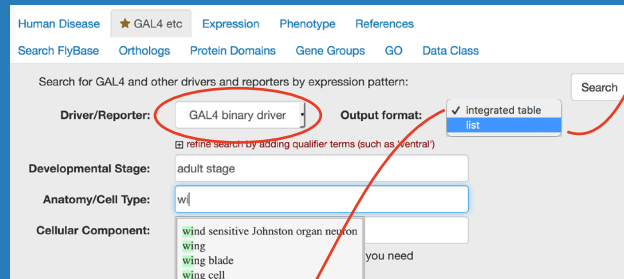
The **View Sequence** window offers several useful features for working with sequence data. To download the sequence as a

FASTA file, click the **download** icon **1**. Selecting a portion of the sequence will display the **coordinates of the selected region** **2**. The **Search in Sequence** box **3** allows the user to enter a specific pattern; matches to the pattern will be highlighted in the sequence. This box also supports regular expression (regex) notation as input. Click on the **help icon** **4** for information on regex notation.

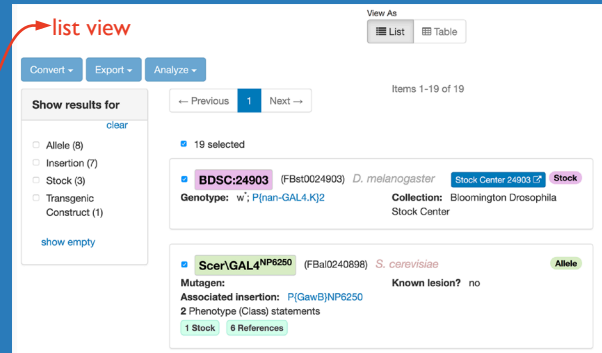
**Bulk ID** mode supports sequence display and downloading for many IDs at once.

**Bulk Region** mode supports the downloading of sequence data by genomic location for any of the sequenced species in FlyBase.

# GAL4 etc



The **GAL4 etc** tab (accessed from the QuickSearch panel on the homepage) allows searches for GAL4 drivers and other reporters and binary drivers by spatiotemporal pattern. Use the search boxes to choose stage and anatomy; autocomplete will suggest terms as you type. You can search for GAL4, QF, or LexA binary drivers, or lacZ or GFP reporters. Output formats include a standard faceted hit-list or a customized integrated table. The hit-list includes alleles, insertions, transgenic constructs, and stocks with expression patterns including the search terms; the hit-list can be filtered to include or exclude specific data types. Any single data type can be further converted, exported, analyzed, or viewed as a table.



**integrated table view** Query: GAL4 | adult stage | wind sensitive Johnston organ neuron

Group #	Relevant Expression Statements	Allele	Construct	Insertion	Stock
1	zone C Johnston organ neuron zone E Johnston organ neuron adult stage	ScerGAL4[nan.PK]	P(nan-GAL4.K)		FBst0024903
2	wind sensitive Johnston organ neuron zone C Johnston organ neuron zone E Johnston organ neuron adult stage	ScerGAL4[NP6250]	P(GawB)	P(GawB)NP6250	FBst0316603
3	zone C Johnston organ neuron zone E Johnston organ neuron adult stage	ScerGAL4[NP6303]	P(GawB)	P(GawB)NP6303	FBst0316625

Search results can also be displayed in an integrated table, in which the relationships between alleles, insertions, constructs, and stocks are highlighted; hits with stocks sort to the top. Also included are the terms that resulted in a hit; the term may be a parent of the exact searched term.

# Frequently Used GAL4 Table

Allele	Insertions/Constructs	Assoc. gene	Common terms	Major tissue	Major stage	Description	Stocks	# Refs
ScerGAL4[cv-c-C5]	P{GawB}cv-c[C5] P{GawB}	cv		wing pouch lateral fan-shaped neuron ExF1 lateral fan-shaped neuron ExF12	larval stage adult stage	Drives larval expression in the wing pouch. Drives adult expression in a subset of cv-c-expressing large field neurons ExF1 and ExF12.	1	36
ScerGAL4[CY2]	P{GawB}CY2 P{GawB}			follicle cell	oogenesis	Drives expression in follicle cells from oogenesis stage S8	0	71
ScerGAL4[da.G32]	P{GAL4-da.G32} P{da-GAL4.w-}	da	ubiquitous	organism   ubiquitous	embryonic stage larval stage	Drives ubiquitous expression in embryos and larvae.	4	783
ScerGAL4[Ddc.PL]	P{Ddc-GAL4.L}	Ddc	dopamine neuron serotonin neuron	dopaminergic neuron serotonergic neuron	larval stage adult stage	Drives expression in dopaminergic and serotonergic neurons, and their precursors.	2	117
ScerGAL4[dimm-929]	P{GawB}dim[929] P{GawB}	dim		peptidergic neuron	larval stage P-stage adult stage	Drives expression in peptidergic neurons.	1	59

The **Frequently Used GAL4 Drivers** table is a new resource listing the GAL4 drivers most often ordered from the Bloomington Drosophila Stock Center and/or used in publications. We have included information relevant to use of these drivers as research tools, as well as often-used synonyms for both drivers and anatomy controlled vocabulary terms. *We would like to enhance this resource with community-contributed representative images of these GAL4 expression patterns; if you would like to contribute an image, see the “Frequently Used GAL4 Drivers Table” commentary on FlyBase.org for more information.*