AGC ACACACTGCAGATCGCAGTGTGTGTGTGTGTGTGAAATCAGTGAAATTC

TAA AGTT CACC AT TO AGA GAG TO TO AGA T

# What's New in FlyBase?

The FlyBase Consortium

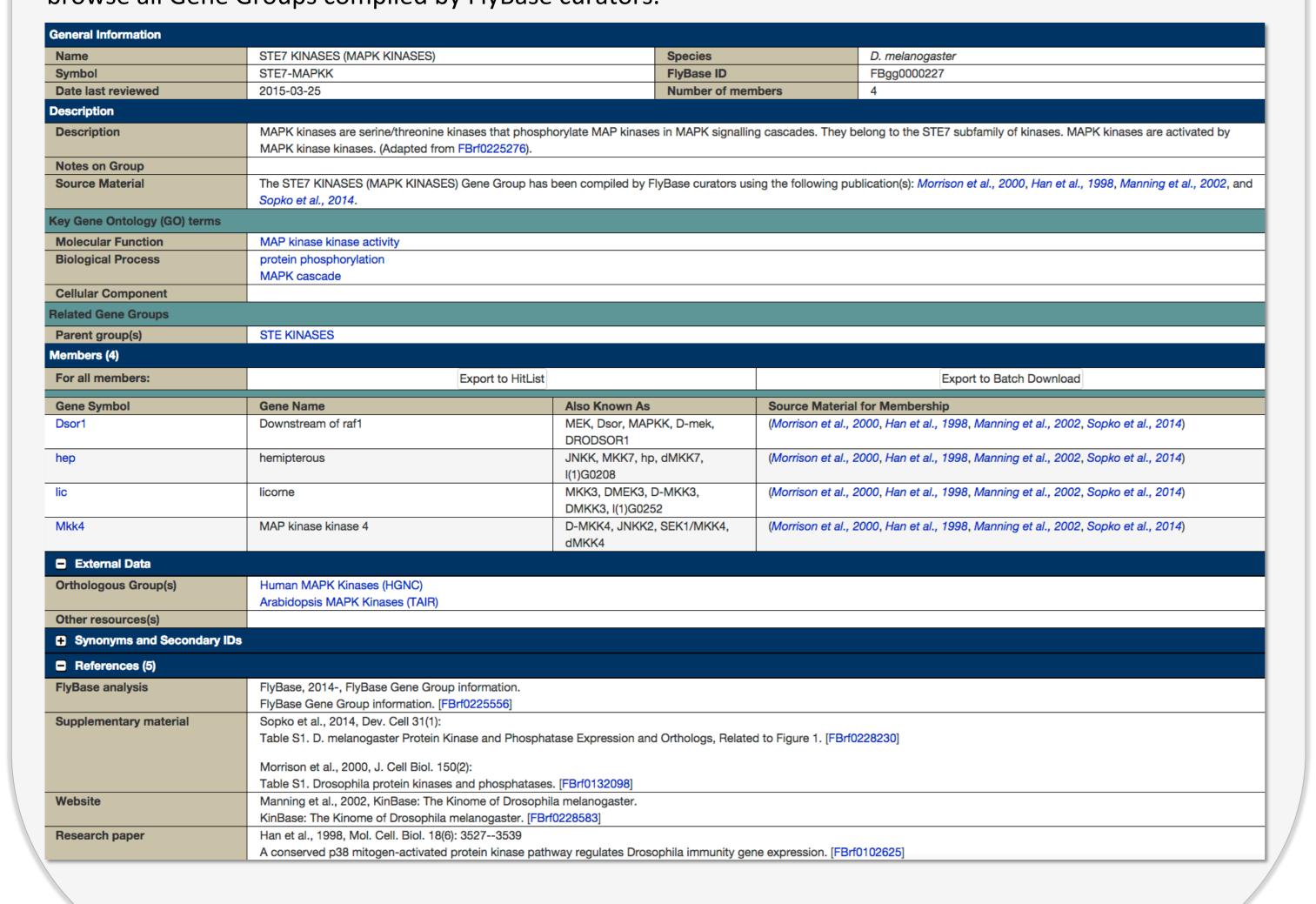
### **Gene Group Reports**

These Reports bring together genes that are acknowledged to form a biological group, such as members of a gene family (e.g. Actins, Wnts) or subunits of a protein complex (e.g. proteasome, ribosome). The FB\_2015\_04 (September 2015) release contains 278 Gene Groups.

#### **Gene Group Reports include:**

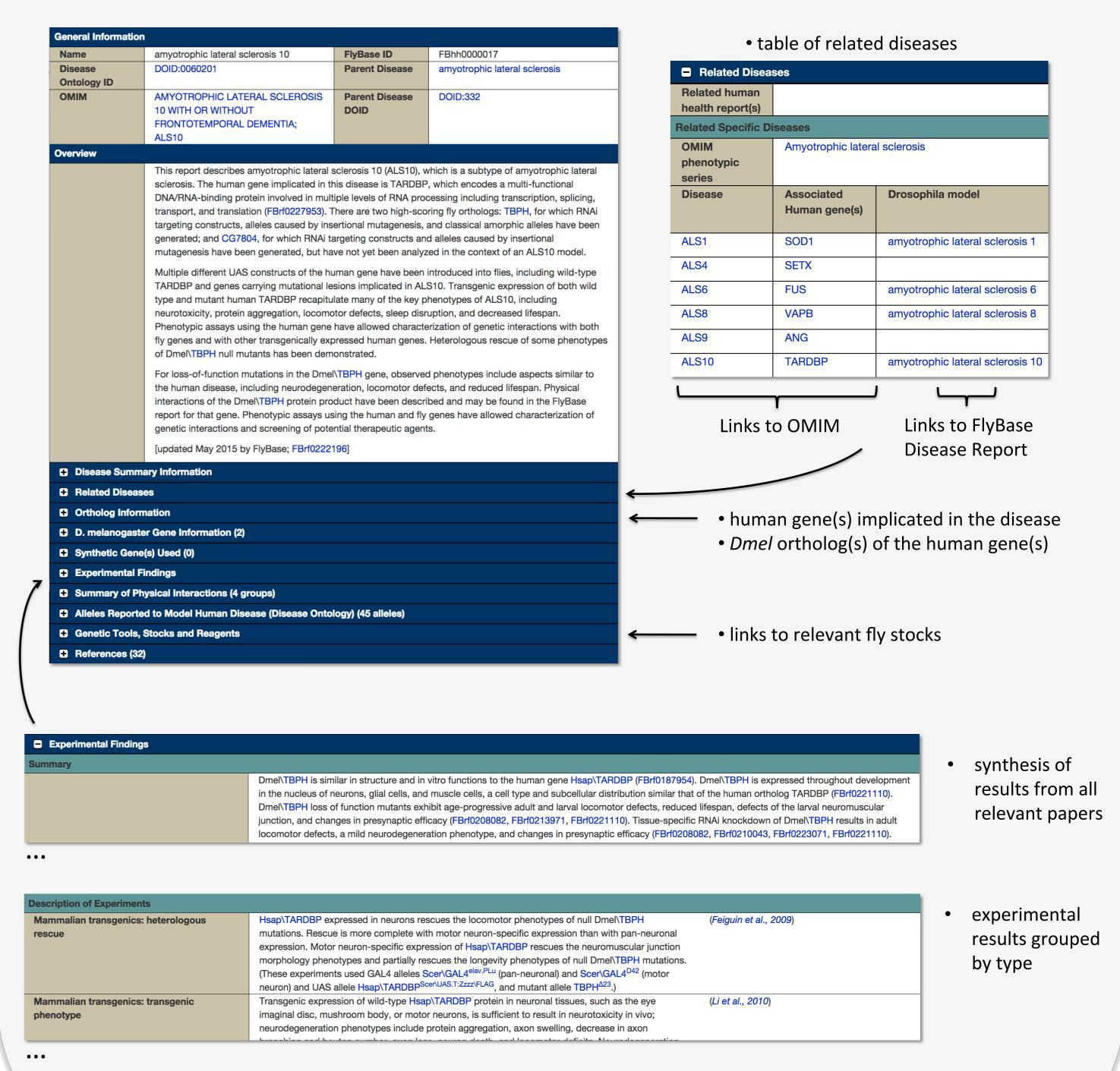
- Group description & membership criteria
- Table of members
- Key Gene Ontology terms
- Links to related groups in FlyBase
- External links to orthologous groups
- Export/Download options for further analysis
- Source references

**Search for a specific Gene Group:** use QuickSearch "Gene Groups" tab and enter the gene or Gene Group symbol, name, synonym or ID. Alternately, you can use the "browse" link present in the Gene Groups tab to browse all Gene Groups compiled by FlyBase curators.



## Human Disease Model Report

These Reports bring together disease-related information from multiple FlyBase reports and provide a less specialised entry point for non-*Drosophila* researchers or *Drosophila* researchers newly interested in a disease.



Search for the relevant Disease Report using QuickSearch, or follow the links from Gene Reports

#### Interactions

FlyBase gene reports now include an interactions graphic provided by esyN (esyn.org). The network is interactive, and a linkout goes to the same interaction network at the esyN site, where further configuration and editing are available.

#### Physical interactions

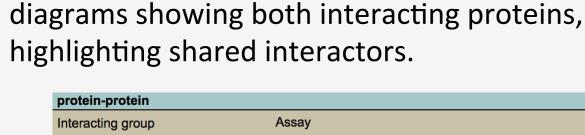
z - Bap170

z - RpL37a

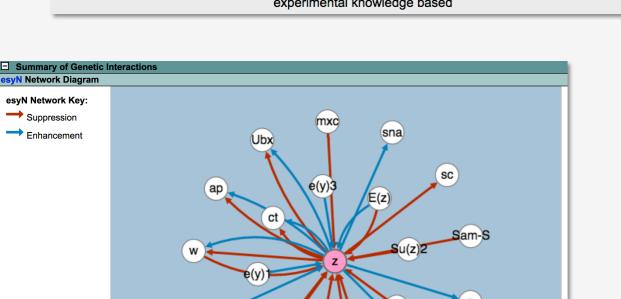
Option to show neighbor-neighbor interactions (shown).
Accompanying table provides details of assay used

with references.

Click on the Interacting group to see network



cosedimentation, western blot, molecular sieving



**Genetic interactions** 

(Chen et al., 1992, Bickel and Pirrotta, 1990,

(Kal et al., 2000)

(Kal et al., 2000)

Easily distinguish between suppressors and enhancers.

Accompanying table showing references.

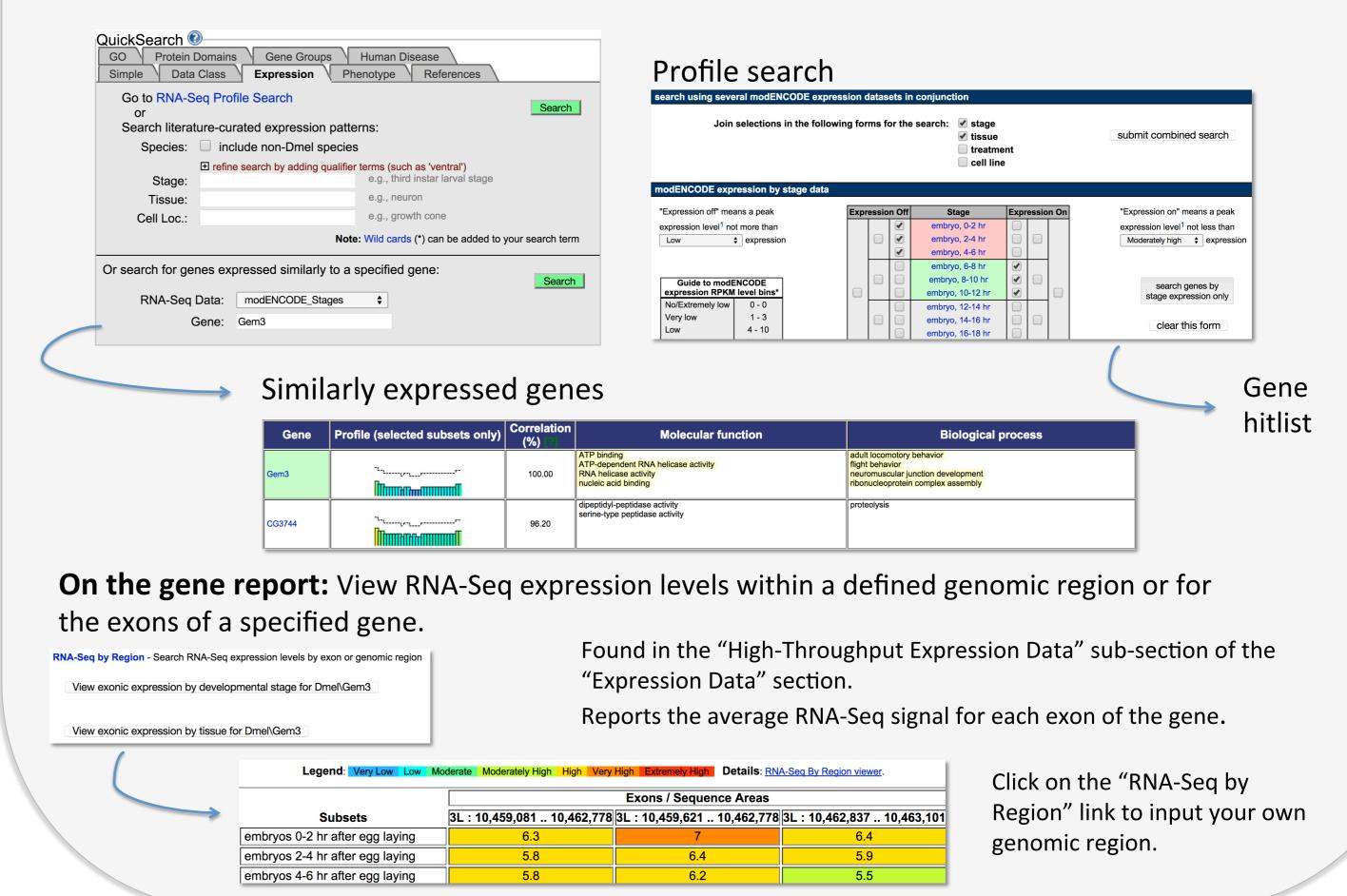
Interaction type	Interacting gene(s)	Reference	
enhanceable	e(y)1	(Soldatov et al., 1999)	
enhanceable	e(y)1	(Georgiev, 1994, Soldatov et al., 1999)	
enhanceable	e(y)1	(Georgiev, 1994)	
enhanceable	e(y)2	(Georgiev, 1994)	
enhanceable	e(y)2	(Georgiev, 1994)	
enhanceable	e(y)3	(Georgiev, 1994)	
enhanceable	e(v)3	(Georgiev 1994)	

#### RNA-Seq

We have expanded our repertoire of RNA-Seq tools to allow you to use these data in a number of different ways. New RNA-Seq tools use RPKM calculations to allow a variety of searches:

#### On the QuickSearch "Expression" tab:

- Search for genes that fit a specified 'Profile' (high/low expression at different stages, in different tissues, using different cell lines or treatments)
- Search for genes with similarity to the expression of a specified gene



### Working with the fly community

Your input is vital to enable us to prioritize data for curation and to ensure that we continue to represent the needs of the community.

Current initiatives include:

FlyBase Community Advisory Group (FCAG) – your chance to have a say on upcoming changes.

enhanceable

suppressible

FCAG was launched last September and consists of representatives from labs worldwide that use FlyBase as part of their research. A year on, we have over <u>550 members</u> from <u>more than 40 countries</u>!

Want to know more? We are always looking for new members, so if you would like to be involved, or just want to find out more about what we do, see http://tinyurl.com/FlyBaseCAG



Jones and Gelbart, 1990, FBrf0064533, Wu et al.

1989, Peterson et al., 1994)

RpL37a

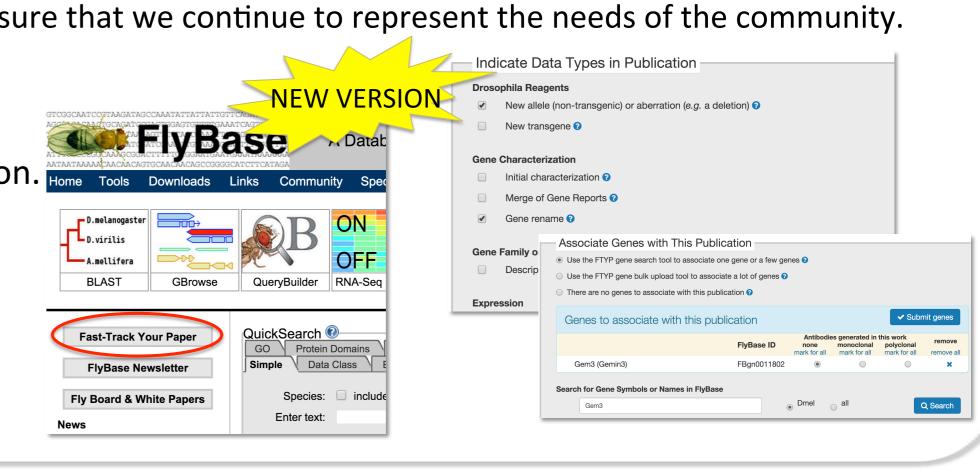
Reset View Reset Layout Edit in EsyN

which data are in your publication. Home Tools Downloads Links

Fast Track Your Paper – tell us

Use this tool to:

- Indicate the data types in the
- publicationAdd genes
- Indicate any new antibodies



At the time of writing, the members of the FlyBase Consortium included: Nick Brown, Giulia Antonazzo, Helen Attrill, Marta Costa, Steven Marygold, Gillian Millburn, Laura Ponting, Alix Rey, Nicole Staudt, Ray Stefancsik, Jose-Maria Urbano (FlyBase-Cambridge), William Gelbart, Kris Broll, Lynn Crosby, Gil dos Santos, David Emmert, L. Sian Gramates, Kathleen Falls, Beverley Matthews, Susan Russo, Andy Schroeder, Christopher Tabone, Pinglei Zhou, Mark Zytkovicz (FlyBase-Harvard), Thomas Kaufman, Josh Goodman, Gary Grumbling, Victor Strelets, Jim Thurmond (FlyBase-Indiana), Richard Cripps, Maggie Werner-Washburne, Phillip Baker (FlyBase-NewMexico).