



# Current Work, Future Directions

**GMOD Spring Meeting 2013**



For those who don't know, is:

- A data integration system
- An optimising data warehouse
- A set of web-services
- A collection of graphical data exploration and analysis tools
- Dedicated to putting bio-informatics tools in the hands of biologists.

# InterMine

For those who don't know, is:

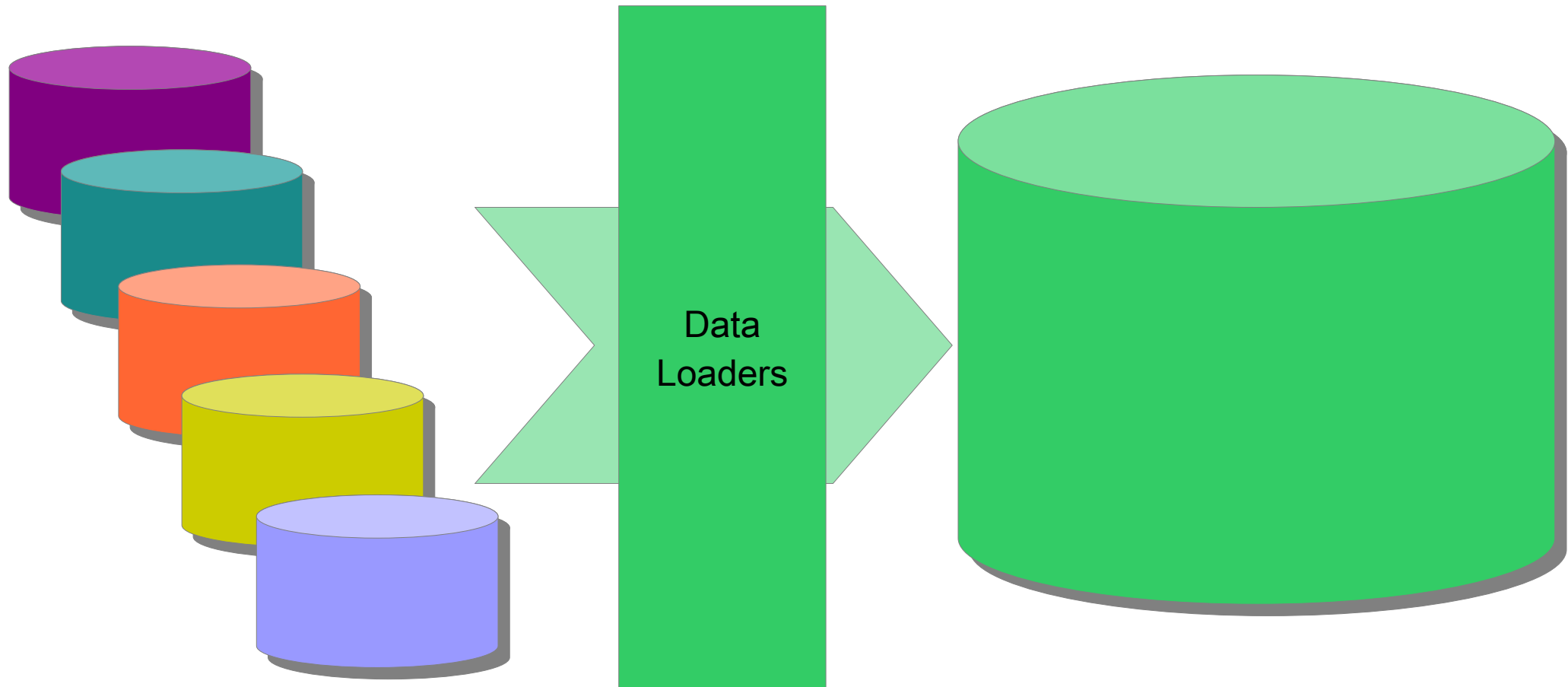
- In use at:

{ *Inter* MOD



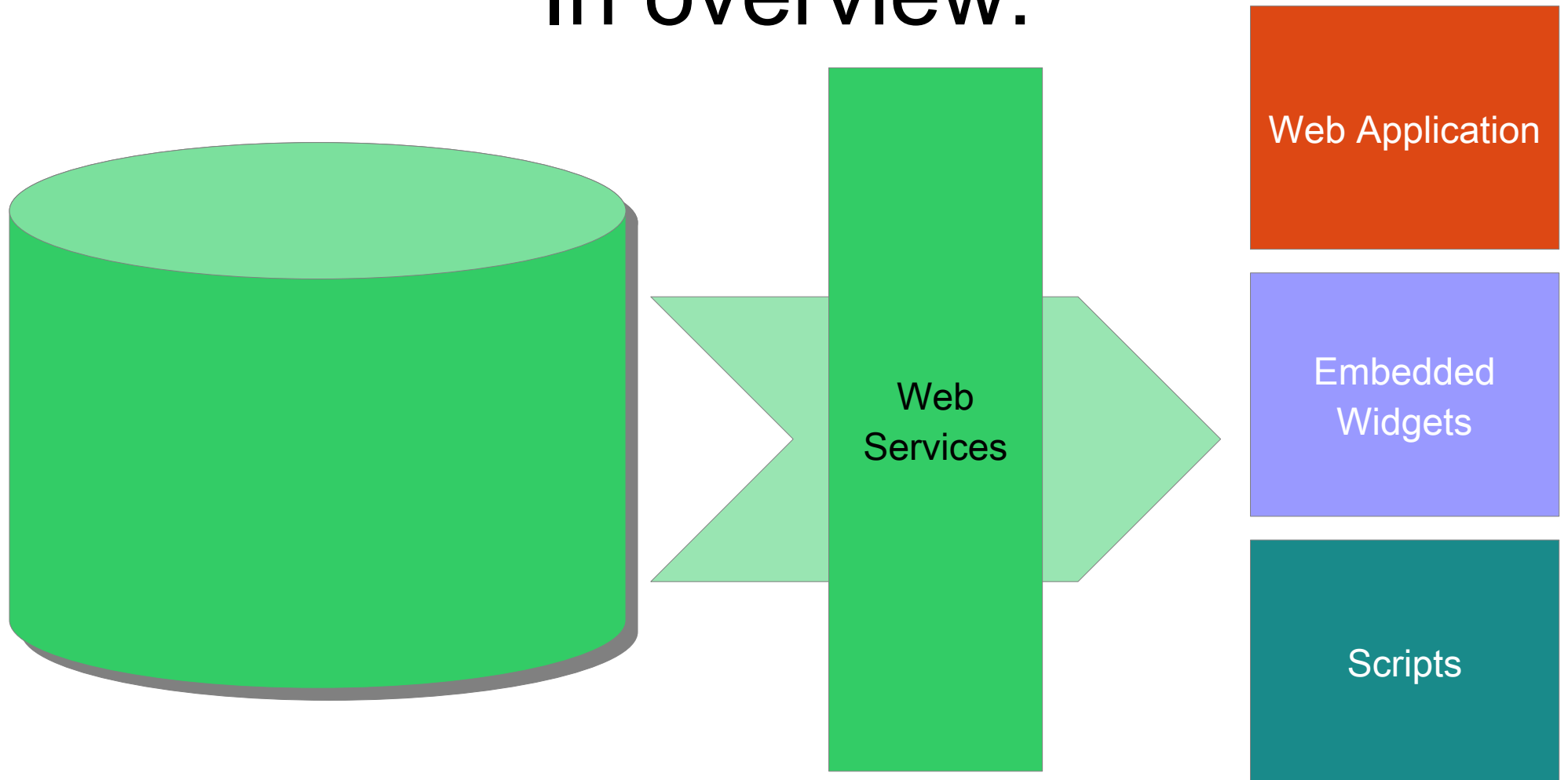
# InterMine

In overview:



# InterMine

In overview:





Easy as one, two, three...

- Write some XML
- Load data
- Release to the world with
  - a graphical data-mining system
  - a fully capable set of web-services



## What's new?

- *New!* interactive tables
- *New!* analysis tools
- *New!* documentation site
- *New!* github repos
- *New!* js client library



## Driven by web-services

- GET /model
- GET /templates
- POST /query/results
- GET /lists
- GET /list/enrichment
- ...



# InterMine

## Driven by web-services

FlyMine vpreview An integrated database for *Drosophila* and *Anopheles* genomics help | about | cite | software

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**List Analysis for some genes fbgn (59 Genes)**

Manage Columns 1 Filters Create / Add to List Get Code Download

Showing 1 to 10 of 59 rows Rows per page: 10

Secondary Identifier	Symbol	DB identifier	Organism
CG10811	eIF4G	FBgn0023213	<i>D. melanogaster</i>
CG11027	Arf102F	FBgn0013749	<i>D. melanogaster</i>
CG11049	sv	FBgn0005561	<i>D. melanogaster</i>
CG11059	Cals	FBgn0039928	<i>D. melanogaster</i>
CG11062	Actbeta	FBgn0024913	<i>D. melanogaster</i>
CG11077	CG11077	FBgn0039930	<i>D. melanogaster</i>
CG11081	plexA	FBgn0025741	<i>D. melanogaster</i>
CG11093	CORL	FBgn0039932	<i>D. melanogaster</i>
CG11144	mGluRA	FBgn0019985	<i>D. melanogaster</i>
CG11152	fd102C	FBgn0039937	<i>D. melanogaster</i>

**Convert to a different type**

CDNAClone 7513  
Exon 682  
Transcript 219  
Protein 162

**Orthologues**

A. gambiae (38) C. elegans (39) D. ananassae (53) D. erecta (55) D. grimshawi (55) D. mojavensis (53)  
D. persimilis (52) D. pseudoobscura (47) D. rerio (144) D. sechellia (47) D. simulans (41) D. virilis (54)  
D. willistoni (53) D. yakuba (55) H. sapiens (119) M. musculus (118) R. norvegicus (103)  
S. cerevisiae (21)

**View homologues in other Mines:**

**YeastMine**  
S. cerevisiae

**modMine**  
D. melanogaster C. elegans

**metabolicMine**  
H. sapiens M. musculus

**RatMine**  
R. norvegicus

**External Links**

FlyExpress  
String - Known and Predicted Protein-Protein Interactions  
Stitch 2 - Known and Predicted Chemical-Protein Interactions  
FlyBase

# InterMine

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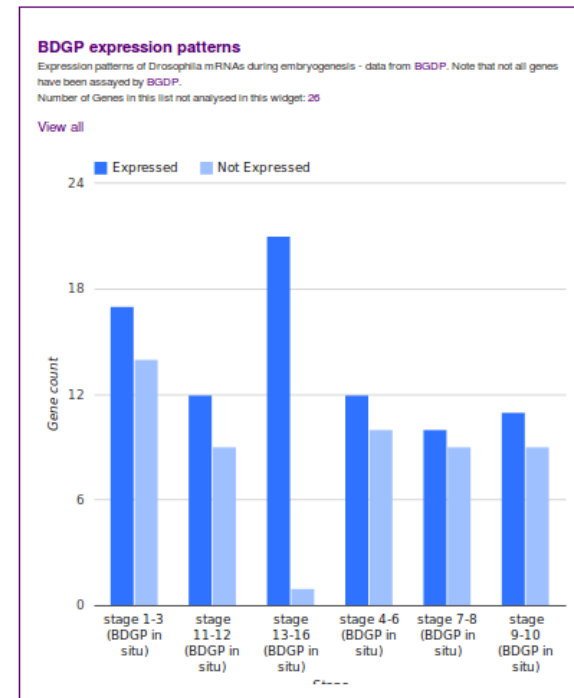
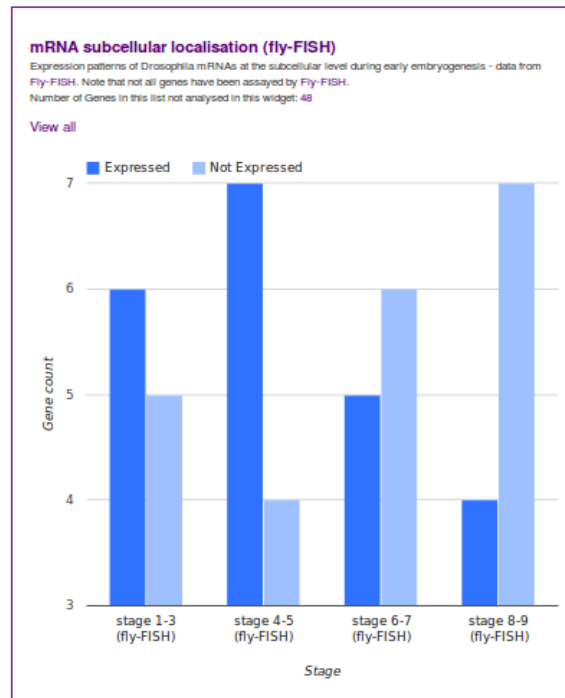
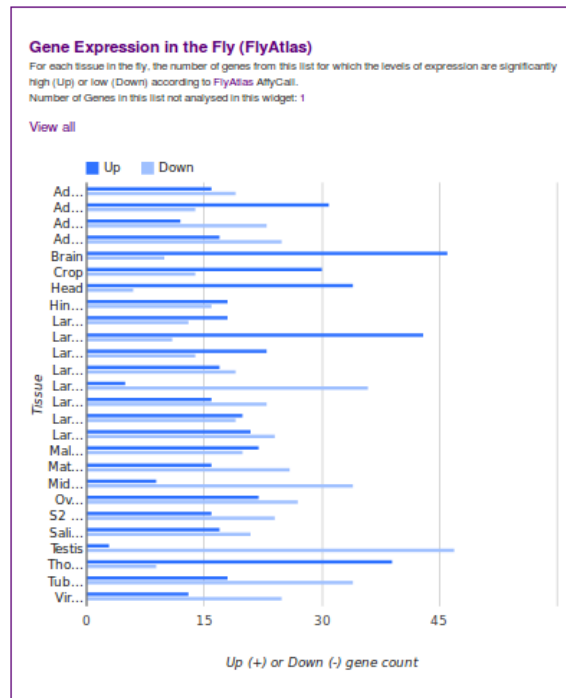
## Driven by web-services

Date Created: 2013-03-20 13:24

### Widgets displaying properties of 'some genes fbg'

Click to select widgets you would like to display:

- Gene Expression in the Fly (FlyAtlas)
- mRNA subcellular localisation (fly-FISH)
- BDGP expression patterns
- miRNA Enrichment
- Gene Ontology Enrichment
- Protein Domain Enrichment
- BDGP Enrichment
- Publication Enrichment
- Pathway Enrichment
- Orthologues
- Chromosome Distribution





If we can do it, so can you!

- Client libraries in perl, python, ruby, java, and javascript
- We eat our own dog food
  - web application built on javascript library
  - In house tools in perl and python
- Code generation to get you started



## Benefits of building on InterMine



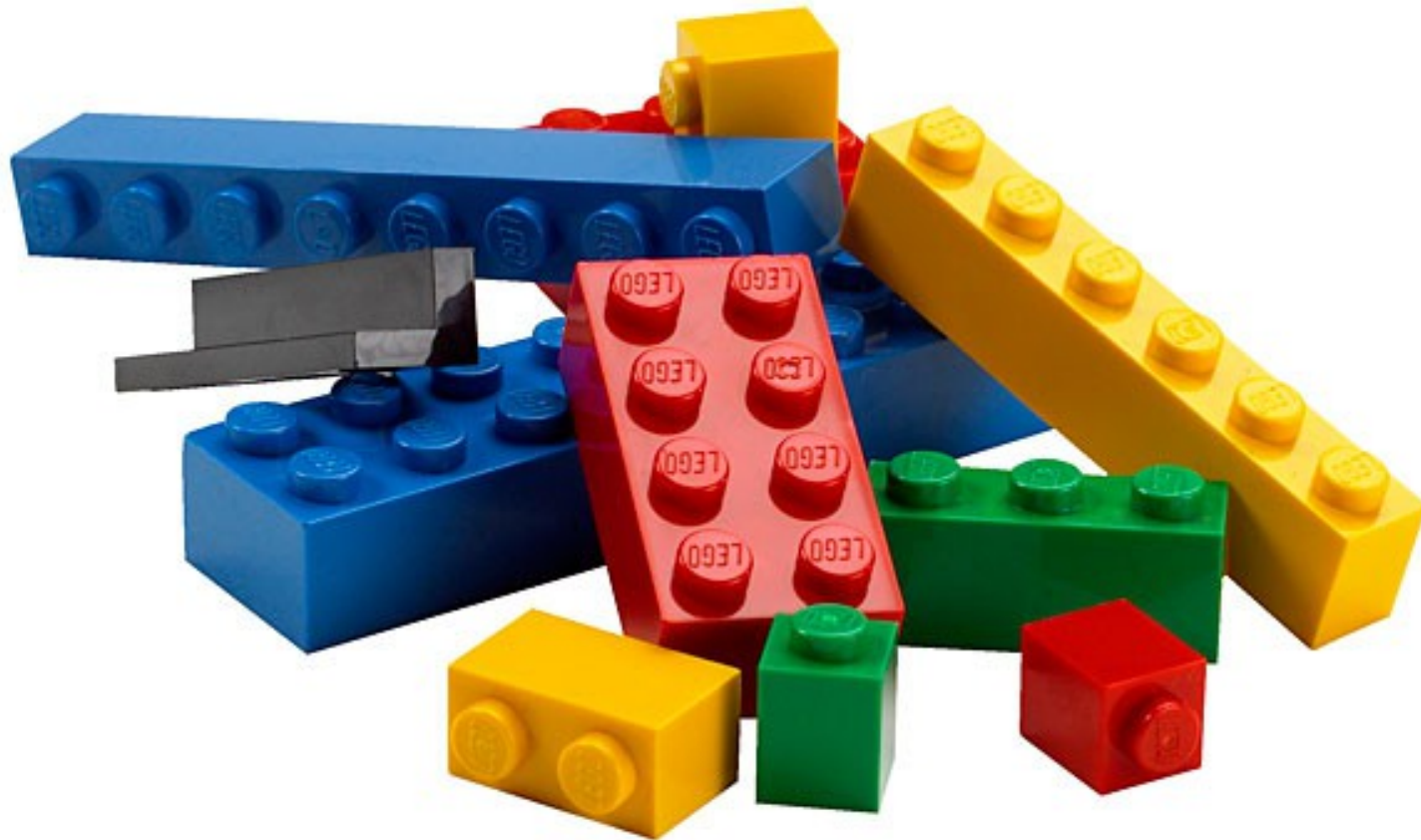
# InterMine

Free (and not just as in beer)



# InterMine

Building the future

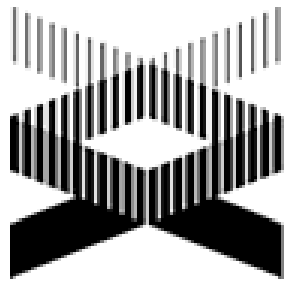




# InterMine



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National  
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Supported by

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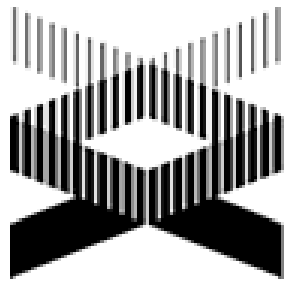




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<http://www.intermine.org>  
<https://github.com/intermine>

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