



### 1

#### UPLOAD GENE SETS

Go to **Manage GeneSets** and select "Upload GeneSet."

Upload or paste in your gene list

#### Describe your data

**GeneSet Metadata**  
Please enter some descriptive info about this GeneSet.

GeneSet Name\*:

GeneSet Figure Label\*:

GeneSet Description\*:

Access Restrictions\*:  Private  Public

**Gene List**  
Provide a list of genes to associate with the descriptive info from above.

Species: -- please select --

Gene Identifiers: -- Auto-detect --

Input Gene List\*:  Have a text file already handy? Switch to file upload

Click on

Upload GeneSet

Under "Reference Info" enter a PubMed ID if available

OR

#### SEARCH FOR GENE SETS

Locate the search tool on the home page or via the **Search** tab.

Search Gene Weaver for any gene symbols, microarray probesets, terms in phenotype description, publication abstracts or authors, etc.

We've updated our search tools. Please be sure to clear your browser (shift-Reload) to enable these features.

Search in:  GeneSets  Genes  Abstracts  Ontologies

- Limit search fields by GeneSet, Genes, Abstract or Ontologies.
- After results are retrieved you can further refine by curation tier, species or attribution

### 2

#### CREATE PROJECTS

- Check box beside gene sets of interest.
- Create a new project or add gene sets to an existing project using the menu:

Add Selected to Project

- Search for more gene sets and add them to your projects. Locate projects on the **Analyze GeneSets** page, or **Analyze** directly from the results page.

OR

#### PROJECTS AND TOOLS

View your gene sets on the "Analyze Genesets" page, rename or delete them. Select projects or sets and analyze.

#### My Projects & Tools

<input type="checkbox"/>	CEREBELLUM - 10 GeneSets	Show Rename	Delete
<input type="checkbox"/>	Cocaine_addiction - 8 GeneSets	Show Rename	Delete
<input type="checkbox"/>	Hypothalamus - 19 GeneSets	Show Rename	Delete
<input type="checkbox"/>	INIA - 4 GeneSets	Show Rename	Delete
<input type="checkbox"/>	Nicotine_addiction - 9 GeneSets	Show Rename	Delete
<input type="checkbox"/>	Stress - 9 GeneSets	Show Rename	Delete

### 3

#### ANALYZE GENE SETS

Under **Analyze GeneSets** click on one of the following tools.



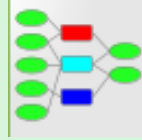
**HiSim Graph**  
Biclique-based analysis is used to generate hierarchical maps of gene set interactions



**Jaccard Overlap**  
This tool computes the Jaccard Coefficient (a measure of similarity) for multiple genesets.



**GeneSet Clustering**  
Jaccard Distance (a measure of dissimilarity) is used to cluster GeneSets



**GeneSet Graph**  
Visualize the Gene-GeneSet graph.



**ABBA Gene-Centered Search**  
Find the genes most closely associated with your gene(s) of interest.



**Boolean Algebra**  
Use advanced set logic to integrate multiple GeneSets



**Combine GeneSets**  
Advanced tool to combine multiple GeneSets into a single association matrix

# 4

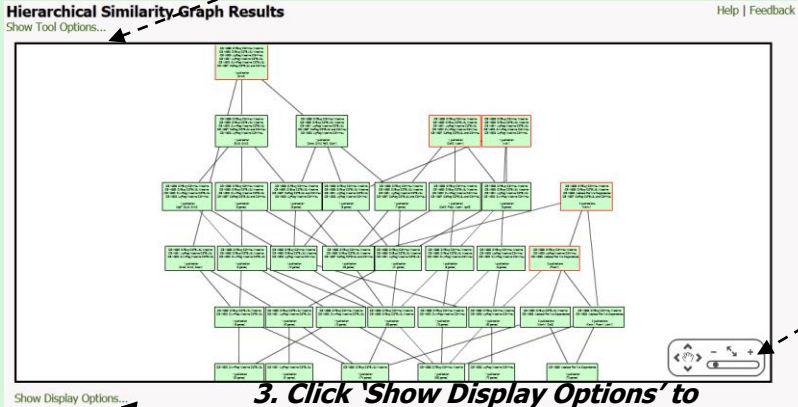
## INTERPRETE AND ANNOTATE RESULTS

Click on any gene set interaction to:

- A. See the genes it contains and link out.
- B. Modify and export your result.

### B

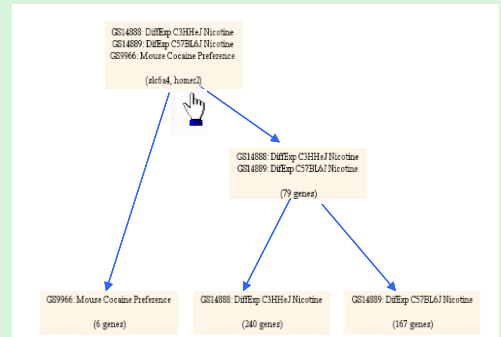
1. Click 'Show Tool Options' to alter levels or number of genes displayed.



3. Click 'Show Display Options' to highlight genes or export as a PDF, SVG or PNG.

### A

#### 1. Select a node



#### 2. Choose external link

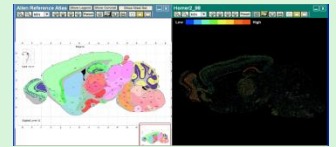
Gene List

● Contained in set (sort by) ● Known Homology (our set)

Gene Symbol	Links
slc5a4	
homer2	
grin2d	
cdc25a	
celsr3	

2. Zoom in, out or pan the graph.

#### 3. View result



## 5 USER GROUPS AND SHARING DATA

# 5

### USER GROUPS

Welcome, Guest  
Register | Login

To store projects in GeneWeaver, users must first create an account by providing a user name and password.

### AVAILABILITY

Availability\*:  Public:  Private:  Group:

When uploading gene sets onto GeneWeaver (Step 1), users have the option of making gene sets public, private or available to only members of a specific group.

### SET UP A GROUP

Welcome, Sonia  
Account & Groups | Logout

Profile

Manage Groups

Group Name	Actions
StephensLab	[admin] [leave]
Stress	[admin] [leave]
Addiction	[admin] [leave]
Autism	[admin] [leave]
Group: <input type="text"/>	[Join] [Create]

If you are a registered user on GeneWeaver, you can create groups on the Accounts & Groups page. A list of your groups is shown. Enter the new group name and hit "Create." Click on [admin] to modify groups that you administer. You may use this tool to add members or assign additional administrator privileges. Click [leave] to exit a group. Click on [list] to see the other members of groups that you belong to.

### MORE INFORMATION

- See "Introduction to GeneWeaver" at <http://www.geneweaver.org/>.
- See GeneWeaver "Interactive Help" at <http://www.geneweaver.org/>.
- See GeneWeaver "Wiki" at <http://www.geneweaver.org/wiki>.



Scan the QR code to take a tour of the site or submit your data with 'Manage Gene Sets'.

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