## **Choosing Genes**

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To obtain gene names for a gene expression search or analysis, use one of the following three methods described in this section: bioDBnet, Gene List or CGAP.

- bioDBnet
   – This link searches bioDBnet for gene IDs, symbols or genes within pathways. Then caIntegrator pulls identified genes into the
   application for analysis.
  - 1. Click bioDBnet.
  - Enter Search Terms. Note that calntegrator can perform a search on a partial HUGO symbol. For example, as search using ACH \* woul
    d find matches with 'achalasia' and 'arachidonate'.
  - 3. Select if you want to search in Gene IDs, Gene Symbols, Gene Aliases, Pathways (from the drop-down list), or Search Pathways for Genes.
    - Gene IDs searches the exact gene ID(s) you enter.
    - $^{\circ}~$  Gene Symbols searches only the Unigene and HUGO gene symbols in bioDBnet.
    - Gene Aliases searches for one or more gene symbols which are synonymous for the current gene symbol.
    - Pathways searches only the pathway names in bioDBnet.
    - Search Pathways for Genes searches for pathways containing gene(s) you specify for the search.
  - 4. Select Show only genes that are part of this (calntegrator) study or Case Sensitive Search if either of these criteria are to be applied to the search. (By default, the search is case insensitive.)
  - 5. Choose the **Taxon** from the drop-down list and click **Search**. (The Taxon criterion defaults to Human.) The search results display on the same page below the search criteria. The following figure shows search criteria and a few of the listed search results.

bio.	DBnet Biologica	al Database Ne	twork S	earch	⊠ ⊚			
Sea	rch Terms (comn	na separated): Bl	RCA*	in Gene Symbols	•			
Sele	ct Taxon: Hum	an		•				
	Show only genes	that are part of thi	is study					
Case Sensitive Search								
Search								
5 gene(s) found.								
5	Gene Id	Symbol	Taxon	Description	Gene Aliases			
•	672	BRCA1	human	breast cancer 1, early onset	PSCP,RNF53,IRIS,PNCA4,BRCAI,BRCC1,PPP1R53,BROVC			
7	675	BRCA2	human	breast cancer 2, early onset	FAD, FANCD, RP11-298P3.4, BRCC2, FACD, GLM3, FAD1, FAND			
•	8068	BRCATA	human	Breast cancer, 11;22 translocation associated	-			
7	60500	BRCA3	human	breast cancer 3	BRCAX			
V	394269	BRCA1P1	human	BRCA1 pseudogene 1	pseudo-BRCA1,LBRCA1,PsiBRCA1			
U	se Genes			1				
•								

In the search results, use the check boxes to identify the genes whose symbols you want to use in the gene expression analysis.
 Click Use Genes at the bottom of the page. This pulls the checked genes into the Gene Symbol text box on the Criteria tab. The following figure reveals some of the genes pulled into the Gene Symbol text box.

For Annotation	For Gene Expression	For Queries and Saved Lists					
Gene Expression	Gene Expression Based Kaplan-Meier Survival Plots						
1.) Gene Symbol	CDH13,FABP3,HAND1,H	A 🕸 🗉 🔯					

- Gene List- This link locates gene lists saved in calntegrator.
  - 1. Click the Genes List icon () to open a Gene List Picker dialog. For more information, see Creating a Gene or Subject List. If a GISTIC analysis has been run, you may see the following options:
    - GISTIC Amplified genes is a list of gene symbols in which the corresponding regions of the genome are significantly amplified.
    - GISTIC Deleted genes is a list of gene symbols in which the corresponding regions of the genome are significantly deleted.
  - In the drop-down menu that lists previously saved gene lists, select a gene list. In the list that appears, use the check boxes to identify the genes whose symbols you want to use in the gene expression analysis.
  - 3. Click Use Genes at the bottom of the dialog. This pulls the checked genes into the Search Criteria tab.
- CGAP Use this directory to identify genes. Before clicking the CGAP icon ( CGAP) you must enter gene symbols in the text box. This link does not pull anything into calntegrator but does provide information about the gene(s) whose names you entered.