<u>**Adding Annotations**</u>

*** Don't forget to log in. You won't be able to create pages, edit, etc. otherwise.***

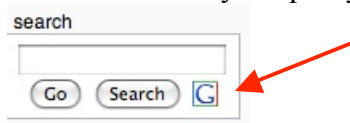# Don't forget – No annotations using:
- binding terms (ie. GO:0005515 protein binding, GO:0005524 ATP binding, GO:0008144 drug binding, etc.)
- `TAS:Traceable Author Statement`, `NAS:Non-traceable Author Statement`, `IC:Inferred by Curator`, or `ND:No Biological Data Available` evidence codes

<u>**To find a UniProt Accession:**</u>
1. Go to http://www.uniprot.org
2. In the query box, enter a search term (ie cancer), protein name with organism (ie p53 human), gene name with organism, or some other relevant term. Click on "Search".
3. Find the protein you are looking for & copy the accession. Be careful, it may not be the first item listed!

<u>**To find a GO term:**</u>
1. Search for a term in the search box on the left of the page. If you click on "G", the search will suggest corrections if you spell your term incorrectly.

<u>**To make a gene product page:**</u>
1. Once you have the UniProt Accession (ie. P04637), go to GONUTS (http://gowiki.tamu.edu).
2. Click on the "Create New Gene Page" link in the menu on the left of the page.

3. Paste the UniProt Accession into the empty box on the GoPageMaker page and click "Create". This will make the gene product page in GONUTS automatically, but this may take up to 60 seconds to fetch the info and create the page.

To add an annotation to your gene product:
1. Scroll down to the bottom of the "Annotations" table. Click on "edit table". This will make all of the rows available to edit.

2. Scroll to the bottom of the table again, click on "Add row".

3. You must fill in the form and save (not update) your annotation.

**There are required and optional fields you must add for every annotation:

        Required: GO ID (ie GO:0005737)
                          Reference (ie. PMID: 1111111)
                          Evidence Code (ie. IDA)
                          Notes (what figure/method/result in this paper)

        Optional: For some evidence codes, you may have to fill in another
                          field called "with/from".
                        For some terms, you may add a "Qualifier".

Examples for Optional Fields:
- If you have a paper that shows that a certain phenotype only shows up when you delete 2 genes (gene aaaA and gene zzzZ), you will use the IGI evidence code, which requires the "with/from" field to be filled in. Edit the Annotations table on the gene page for aaaA and add a row so you can put in your annotation. Enter your appropriate GO ID, Reference (PMID:11111111), Evidence Code is IGI (Inferred from Genetic Interaction), which will bring up an additional field. This additional field is the "with/from" field and you **must** put in an accession for zzzZ (ie UniProt Accession) for this annotation to be considered complete. Note that you can add the same annotation to zzzZ's annotation table with the accession for aaaA in the "with/from" field.
- You have a paper that shows that 2 or more (a complex) of gene products are required to get a certain activity and that the individual gene products alone are not sufficient to show this activity. In this case, you must add a qualifier of "contributes_to". This is ONLY relevant to molecular function terms.
- You have a paper that says "in contrast to previous reports, this protein was not localized to the inner membrane upon subcellular fractionation". In this case, you are allowed to put a "NOT" qualifier in front of an annotation to inner membrane (so long as the experimental result shows this). This qualifier is used when a previously reported result is shown to be incorrect (ie. NOT in inner membrane as shown before), not when there is a negative result reported (ie. Protein A isn't in the inner membrane and has never been reported to be).
- For more information, see:
  http://www.geneontology.org/GO.annotation.conventions.shtml