

Homework Assignment 6: Annotated Bibliography

Due: Beginning of class, Wednesday, March 4, 45 points

To turn in your assignment, you will submit both an electronic and hard copy.

- For the electronic copy, e-mail a Word document to Dr. Dahlquist by the beginning of class on Wednesday, March 4 (kdahlquist@lmu.edu). The filename should include your last name and the date (e.g. Dahquist_HW6_20150304.docx)
- For the hard copy, please print it out and bring it to class on that day.

Resources:

Biology 478 LibGuide: <http://libguides.lmu.edu/BIOL478>

PubMed: <http://www.ncbi.nlm.nih.gov/pubmed>

Google Scholar: <http://scholar.google.com/>

Web of Science: find link on LibGuide page

Saccharomyces Genome Database (SGD): <http://www.yeastgenome.org>

Purpose:

The purpose of this exercise is to create a bibliography of papers related to the research project that we will conduct in the second half of the semester. You will present one of the primary research articles as a journal club presentation on Tuesday, April 8 (see Assignment 10). You will also use these articles to write the Introduction and Discussion sections of your Final Laboratory Report due on Friday, May 8. Beginning on March 2, we will be embarking on a class project to determine the global transcriptional response of the *Saccharomyces cerevisiae* BY4741 $\Delta hap4$ strain to cold shock and recovery using DNA microarrays. DNA microarrays measure the mRNA levels of all 6000 genes in yeast simultaneously, giving a snapshot of all transcriptional activity in the cells at one time.

Assignment:

1. Create a bibliography of a minimum of 8 citations to primary research articles.
 - A minimum of four articles should address the effect of cold shock on gene expression in budding yeast, *Saccharomyces cerevisiae*.
 - A minimum of four should address the role of Hap4 in regulating gene expression in yeast.
 - Two articles for each of the above topics should have been published in the last three years.
 - Each of the 8 references in your bibliography needs to have the following information (an example is given at the end of the assignment handout):
 - The complete bibliographic reference in the APA style (see <http://libguides.lmu.edu/content.php?pid=25618&sid=184708>. You will be using one of three formats, “journal article from database (with DOI), journal article from database (no DOI) or journal article in print (no DOI).)
 - The link to the abstract from PubMed.
 - The link to the full text of the article in PubMedCentral.
 - The link to the full text of the article (HTML format) from the publisher web site.
 - The link to the full PDF version of the article from the publisher web site.
 - Who owns the rights to the article?
 - Does the journal own the copyright?
 - Do the authors own the copyright?
 - Do the authors own the rights under a Creative Commons license?
 - Is the article available “Open Access”?
 - What organization is the publisher of the article? What type of organization is it? (commercial, for-profit publisher, scientific society, respected open access organization like Public Library of Science or BioMedCentral, or predatory open access organization;

- see <http://oaspa.org/membership/members/> for a list of members of the Open Access Scholarly Publishers Association)
- Is this article available in print or online only?
 - Has LMU paid a subscription or other fee for your access to this article?
2. You must use these four databases/tools to find the references that you include in your bibliography: PubMed, GoogleScholar, Web of Science, *Saccharomyces* Genome Database (SGD). Answer the following questions as part of your assignment:
- a. Use a keyword search for the first three databases/tools and answer the following:
- PubMed
- What original keyword(s) did you use? How many results did you get?
 - Which terms in which combinations were most useful to narrow down the search? How many results did you get after narrowing the search?
- Google Scholar
- What original keyword(s) did you use? How many results did you get?
 - Which terms in which combinations were most useful to narrow down the search? How many results did you get after narrowing the search?
- Web of Science
- What original keyword(s) did you use? How many results did you get?
 - Which terms in which combinations were most useful to narrow down the search? How many results did you get after narrowing the search?
- b. Use the advanced search functions for each of these three databases/tools and answer the following:
- PubMed
- Which advanced search functions were most useful to narrow down the search? How many results did you get?
- Google Scholar
- Which advanced search functions were most useful to narrow down the search? How many results did you get?
- Web of Science
- Which advanced search functions were most useful to narrow down the search? How many results did you get?
- c. Perform a prospective search on the following three review articles in Web of Science and answer the following:
- Aguilera, J., Rande-Gil, F., & Prieto, J.A. (2007). Cold Response in *Saccharomyces cerevisiae*: New Functions for Old Mechanisms. *FEMS Microbiological Reviews*, 31, 327–341. doi: 10.1111/j.1574-6976.2007.00066.x
 - How many articles does this article cite?
 - How many articles cite this article?
 - Al-Fageeh, M.B. & Smales, C.M. (2006). Control and Regulation of the Cellular Responses to Cold Shock: the Responses in Yeast and Mammalian Systems. *Biochemical Journal*, 397, 247–259. doi: 10.1042/BJ20060166
 - How many articles does this article cite?
 - How many articles cite this article?
 - Thieringer, H.A., Jones, P.G., & Inouye, M. (1998). Cold shock and adaptation. *BioEssays*, 20, 49–57. doi: 10.1002/(SICI)1521-1878(199801)20:1<49::AID-BIES8>3.0.CO;2-N
 - How many articles do each of these articles cite?
 - How many articles cite each of these articles?
- d. Using SGD, look up the gene, *HAP4*.
- How many unique references are there in the SGD literature overview for this gene?
 - How many unique references are there in the SGD primary literature for this gene?

For example, see the bibliographic entry for Schade et al. (2004) below which is available both in print and online:

Schade, B., Jansen, G., Whiteway, M., Entian, K.D., & Thomas, D.Y. (2004). Cold Adaptation in Budding Yeast. *Molecular Biology of the Cell*, 15, 5492-5502. doi: 10.1091/mbc.E04-03-0167

- PubMed Abstract: <http://www.ncbi.nlm.nih.gov/pubmed/15483057>
- PubMed Central: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC532028/>
- Publisher Full Text (HTML): <http://www.molbiolcell.org/content/15/12/5492.long>
- Publisher Full Text (PDF): <http://www.molbiolcell.org/content/15/12/5492.full.pdf+html>
- Copyright: 2004 by the American Society for Cell Biology (information found on PDF version of article); article is not Open Access, but is freely available 2 months after publication
- Publisher: American Society for Cell Biology (scientific society)
- Availability: in print and online
- Did LMU pay a fee for this article: no

Optional:

- You may choose to create your bibliography using the free citation management software, Zotaro. (See <http://libguides.lmu.edu/content.php?pid=442493&sid=3623452>)
- Zotaro will allow you to save a list of references and then output them in the APA form requested in the assignment. You will still need to answer the additional questions for each reference.