# **Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date:\_\_\_\_\_\_\_\_\_\_\_**

**Chem 162**

# **Exercise 1**

# **Searching the Chemical Literature**

**A. Comparison of Literature Databases**

1. Choose a science professor you have had at CSUS or another university. Perform an author search in SciFinder to find out what this person has been up to when not teaching, or what they did in a former lab. You may need to try more than one professor. What variations in the name did you find and how many records did you find for each? Mark no more than 3 records. Print these records in **Standard** format with the professor’s name as your **Print Header**. Attach to your lab report. Hints: Where would you expect to find the full name including initials? CSUS catalog? Department website? University directory? Married women’s names can be tricky – which name was used when they published? Look for name variations. Some journals use full names, whereas others use initials.

 Professor’s name:

 Number of “hits” in Scifinder (for the 3 best match records):

2. Now perform the same search in PubMed. Note the number of hits obtained and mark any 3 records. Look at the various **Display** options, select **Summary**, and **Send to** the printer. Note the other options. Why would you want to sort by journal title?

 Number of “hits” in Pubmed:

 Discuss two differences between SciFinder and Pubmed.

 What did you learn about the information available from various sources?

3. Searching both SciFinder **and** PubMed, find the **earliest** reported isolation/purification of one of the lectins we will use in the Western Blotting experiment later this semester (either concanavalin A or wheat germ agglutinin). Which lectin did you choose? Note your search strategy, and print both reference/s (citation and abstract, if available). Attach to your lab report. Hint: How are the records sorted?

Lectin chosen:

Search terms used:

SciFinder earliest record:

PubMed earliest record:

4. Using one of the index databases, find a recent paper (within the last year) relating to the same lectin as above. Choose a paper that uses the lectin in a different application (not Western Blot). What is this application and how is the lectin a useful tool for this application? Note your search strategy, the database, and number of records found. Print the citation and abstract.

 Database used:

 Search terms used and number of records found for each:

What is this application and how is the lectin a useful tool for this application?

**B. Using Search Limits**

1. Using SciFinder Scholar, search for articles relating to a scientific subject of your choice. Explore a "Research Topic" (write the keywords or phrase just as you typed them in your lab notebook). Next, refine your search in multiple steps by first adding another search term, then choosing a document type, and finally limit to the English language. Note and record the number of hits obtained for each part of the search in your notebook. You can view your progress under **History**. (In the lab, the History will not print, so you will have to write it by hand.)

 Research topic:

Refine by search terms (include each additional search term and number of hits each):

 Refine by document type (include number of hits):

 Refine by language (English):

2. Using PubMed, repeat the same search as above, comparing the results with those found in SciFinder. Impose the same limits you did when you refined your search in Scifinder.

Refine by search terms (include each additional search term and number of hits each):

 Refine by document type (include number of hits):

 Refine by language (English):

**C. Gaining Familiarity with PubMed**

1. What other services and databases are available on the PubMed website (Name at least 3)? Have you used any of these before?

1.

2.

3.

Have you used any of these before?

2. Using one of the journal title abbreviations (make sure it is an abbreviated title) obtained from the search you did for question A2, find the complete title in the Journals database:

 Complete Journal Title:

Note the publisher, the start year of the journal, and the language:

a. Now, look at the Library catalog, EUREKA, to see if Sac State subscribes to this journal. Where is it located and what are our holdings?

 Location:

 Holdings (Journal Volumes/Years):

b. Check the UC Davis catalog <harvest.lib.ucdavis.edu> for this title. The UC Davis Library arranges their journals by call number. What is that call number and where is it located? Is it available electronically? If so, you can get it at the Med Center Library, close to us.

 Call number:

 Location:

 Electronic availability?: