Once you have determined the topic you want to research, medical librarians can work with you to:

- Determine the database(s) you should use for your research topic
- Design an effective search strategy for a comprehensive overview of your research topic
- Refine your search strategy and suggest additional databases based on your review of search results
- Provide training on database searching and citation management/writing tools, such as PubMed, Web of Knowledge, EndNote and EndNote Web, and Cite While You Write in MSWord
We don’t have a librarian dedicated to research requests, but any one of us could help you with databases and search strategies in addition to our day jobs!
In fact, these four reasons are actually similar to any researcher looking into a particular topic -- see the article “How to Choose a Good Scientific Problem”
doi:10.1016/j.molcel.2009.09.013

If a topic is perceived as beneficial by funding agencies or is very popular in society or academia, the last two reasons can translate into $$$ for your research
From the library’s main page, the MedResource List provides access to the library’s primary research databases and other tools. There are many databases to explore here, depending on your topic, but I chose the ones I did to demonstrate 3 types of databases:

- discipline-specific: PubMed
- “metasearch”: ProQuest (PQ) and Web of Knowledge (WOK)
- “megasearch” (who can tell us which one I am calling the “megasearch” database? Yes, Google Scholar!)

One more useful link here is for EndNote Web, which can help you manage the citations you retrieve from all your various searches.

Note: off-campus access via EZproxy is needed for PQ, WOK and to register for EndNote Web
We’ll start with PubMed, which contains citations and abstracts to the medical literature.

These four features of PubMed can be used to make your search strategy stronger and your search process more efficient.

Which database is PubMed the user interface for? (MEDLINE)
Start with PubMed basic search; type in rosehips;

Why did I get these citations that are so unrelated? Hint -- look at Search details (because of “rosa”[All Fields], which is in the author field and who knows where else; so that’s a term we won’t use in our actual search strategy)

Most databases these days try to interpret what you type in, which sometimes can be very good and sometimes not so good. Just be aware if you get strange results to see what you can do to manipulate the search strategy.

Also notice “rosa”[MeSH], which is very helpful. Why do we care about MeSH terms? They complement keywords because MeSH terms are assigned to the full article by indexers, and will get hits on citations that otherwise would be missed.

I want to see more about Rosa in MeSH – so , how do you get to MeSH? (down arrow in PubMed box)
I type in rosehips and Rosa pops up. If wanted, I can add this term to my PubMed search by choosing Add to search builder and Search PubMed on the right.

If you use subheadings, they need a / -- for example rosa/adverse effects

Review:

Does PubMed contain the full text of articles? (no)

Will the most current citations and abstracts have MeSH terms assigned to them? (no)
Notice that the first search retrieves 432 citations, while the second retrieves 545 after I add synonyms and spelling variations. Hmm, I see I forgot to add “rosa damascena” to my search strategy, but it’s too late for this presentation! In the real world I would have to do the search over.

Then I erase the rose search and search on osteoarthritis.

After I click on Advanced, I see my search history and I can also combine sets of results by Adding the # of the search.

The combination results in 19 hits.

Quiz:
Why didn’t I need to add rosehips to the search?
(Because rosehip* will include the plural, as well as any other variations)
Logging into My NCBI (notice my login information on the top right) allows you to see the keywords highlighted.

Having a free NCBI account also allows you to save search strategies and have search updates sent to your email on a regular basis.
On the top right corner of the PubMed page is where you sign in to or register for an NCBI account. Once you have logged in or registered, you are returned to your PubMed search screen with your name in the top right.

Selecting My NCBI will take you to the NCBI dashboard, where you can set Site Preferences such as highlighting, and see your Saved Searches.

How do you save your search to begin with? Hint: look near your search string. (It’s Save search, next to Advanced.) When you are saving your search, you will be asked if you would like search results emailed to you, and if so, how often you would like the emails.
I thought I would try the search strategy Topic=(rose OR rosa) AND Topic=(osteoarthritis), but it brought up results that did not contain either rose or rosa. After some time I realized the results included variations on rise, such as arise, raise, and raised (unfortunately NOT highlighted). Here’s why this happens and how to solve it:

Lemmatization can be disabled by enclosing search terms in quotation marks “” or wildcards *

From WOK Help Menu:
Lemmatization Search Rules
Topic and Title search queries:
napkin finds vocabulary variants such as napkin and serviette
serfs finds phonological variants such as serfs and serves
defense finds spelling variants such as defense and defence

Lemmatization and Quotation Marks
The product will not retrieve synonyms and lemmatized terms when you enclosed your search terms in quotation (" ") marks. For example:
"mouse" finds records that contain the word mouse but not mice.
"color" finds records that contain the word color but not colour.

Lemmatization and Wildcards
color* finds records that contain the words color, colors, and colorful but not colour,
colours, and colourful.
To find all variants of a term, enter both terms using a wildcard separated by the OR operator. For example, color* OR colour* finds both variants.

**Lemmatization and Left-hand Truncation**
*valves* returns bivalves but not the singular form bivalve.
By adding right-hand truncation to your search, the product returns both plural and singular terms. For example, *valve* returns bivalve and bivalves.

**Lemmatization and Too Many Search Terms**
When you exceed the limit, the product returns only exact matches.
So, the same search as we did in PubMed minus the MeSH term results in 37 citations to articles only (limited with this search for comparison purposes, but we could also have conference proceedings in the results).

The first and third citations were not retrieved by PubMed because WOK uses Keywords Plus. The first one is very related, as it discusses rosehip powder inhibiting cytokine production – interleukin overproduction is involved in inflammation and tissue destruction. The third citation is related in a very small way, showing that the levels of inflammation between the control and test groups did not differ. So KeyWords Plus can be helpful (or not!).

Notice the EndNote Web and EndNote buttons on the page – WOK and EndNote are both Thomson-Reuters’ products, so transferring citations to your citation manager is very easy.
You can pick and choose databases but for purposes of this seminar, I am going to use all of them. One potentially useful aspect of ProQuest is that it includes trade journals and magazines, which contain information on the “state of the art” scientific, pharmaceutical, etc. business news.

ProQuest “Metasearch”

- **57 databases**, including BioOne Abstracts and Indexes, Animal Behavior Abstracts, Genetics Abstracts, Neurosciences Abstracts, PsycINFO, ERIC, MEDLINE, etc.
- **Wide variety of document types** from scholarly and trade journals, dissertations and abstracts, conferences, magazines, wire feeds
- **Abstract preview with highlighting** and **Publication dates graphic**
Select 57 databases at the top of the page to see the list of databases searched by ProQuest

Question:
Are these mostly citation or full-text databases? (mostly just citation/abstract but there are a few full-text databases)
Note that these citations have the search terms highlighted. When they are not highlighted, it is usually because the keywords are in the full text of the document. Depending on the keyword, that may or may not be helpful.

Also note that I have chosen the Document type Article (48). I did this because there might be something interesting in the trade journals or magazines (remember the business news!).

Why do you think there are only 40 Results? Hint: remember this is a metasearch (The asterisk lets you know at the bottom of the page * Duplicates are removed from your search and from your result count.)

BTW, if I had chosen Scholarly Journals, the non-duplicated results would have been 31.
Two useful features in PreQuest
1) The ability to preview the abstract without leaving the results list with keywords highlighted (WOK has a + to open the abstract but doesn’t highlight the keywords unless you select the citation)
2) a graphic representation of the publication dates of the results list – lets you know when this topic was most popular in the literature
Can anyone see any potential problems with the ranking description (the third item)?
Possible answers:
  - Google’s definition of “scholarly” is non-existent
  - Basing the relevance of results on the number of times something is cited can be problematic depending upon the original article
  - No details about how they determine the academic status of the author or journal
Notice that we got over 500, 1300 or 1400 results – ay, ¡caramba! And what’s weird is that the * seems to somehow limit the results instead of expanding them

Also, I don’t know why GS has a problem with my having rosehip OR rosehips – why would I want to have rosehip OR rosehip?!

Bottom line for this search -- even with unchecking “include patents” and “include citations” (look at the first search screen) the total is over 1200.

What can we do? There is no way that I have found to limit GS results to articles published in journals, but I tried...
First attempt to limit to journals

Hmmm, not very successful (only decreased results by 20), so...
Another attempt to limit to journals...

Looks good at first – 333 hits, but did this just retrieve journal articles? (no – there are two books in the results) Sigh.

So, another way to limit – by title!
If the topic is not unique, which is the case here, one strategy is to limit by intitle:keyword or allintitle:keyword to get the most relevant hits. For intitle, there should be no space between the colon and the keyword; for allintitle, it doesn’t seem to matter.

9 hits looks good, except that it’s not reading past rosehip* (rosa canina is not highlighted) – so again, the * is a problem
Using intitle: with parentheses does not always result in rh or rc, etc. in the title (see third hit) – besides which, it resulted in over 16,000 results.
This search means that OA will always be in the title and the rose stuff will be in the title or anywhere else. GS searches the full text when it is available – so with a combination of title and text search, you may get some citations that are unique and on target.
In this search, what concept will presumably always be in the title (rose, etc.) and which will be either in the title or anywhere else? (OA)

BTW, clicking on the little down arrow can show you how GS interpreted your search string...
Notice that Google added in the AND, but you don’t have to since it is the default. I have no idea why GS has intitle twice in the rosehip line but it seems to have something to do with the plural.
I created this strategy using the advanced search screen and GS put the search string into the box! It resulted in 7 hits.
Also note that this is the same as intitle:OA intitle:rosehip OR intitle:rosehips OR etc.)
EndNote Web (Citation Manager)

- Each database has specific method to export citations to EndNote Web
- Collect all citations and organize into groups
- Citations accessible from any computer (cloud-based storage)
- Quickly create bibliographies
- Easily share citations with other EndNote Web account holders

EndNote Web citations can be transferred to EndNote on your desktop and vice versa. The library has some quick tips that can help with this, and we may ask you to test some of our documents to make sure they can be posted on our website.
How to Set Up an EndNote Web Account

Two routes to this page: med.fsu.edu/library > Academic Research > Informatics Resources > Topic Areas > Research

OR, go the search box at med.fsu.edu and type “research resources” – it’s the first hit
At the bottom of med.fsu.edu/library, two choices for learning more about EndNote Web:

Resources > About MedResources > EndNote Web (Citation Manager)

Academic/Research > Research Support > Citation Tools > EndNote Web (Citation Manager)