

# Postgraduate Medical Education academic half-day: Searching for literature using library resources

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Libraries and Cultural Resources

2023-2024

**The University of Calgary, located in the heart of Southern Alberta, both acknowledges and pays tribute to the traditional territories of the peoples of Treaty 7, which include the Blackfoot Confederacy (comprised of the Siksika, the Piikani, and the Kainai First Nations), the Tsuut'ina First Nation, and the Stoney Nakoda (including Chiniki, Bearspaw, and Goodstoney First Nations). The City of Calgary is also home to the Métis Nation of Alberta Region 3.**





# agenda



UCALGARY LIBRARY WEBSITE

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PREDATORY PUBLISHERS

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DATABASES, RESEARCH  
QUESTIONS + PICO

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OVID MEDLINE

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SYSTEMATIC REVIEWS:  
a brief intro

# Library website & getting set up

Libraries & Cultural Resources

Chat, catalogue, interlibrary loan, databases <https://library.ucalgary.ca>

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Sage Research Methods

Qualitative research guidebooks <https://methods-sagepub-com.ezproxy.lib.ucalgary.ca>

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Research Guides

All-in-one-Medicine-guide <https://libguides.ucalgary.ca/medicine>

Scholar's Toolkit <https://libguides.ucalgary.ca/guides/toolkit>

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Covidence

Screen title/abstract/full text papers <https://app.covidence.org/organizations/Q4VXa/signup>

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Citation Manager

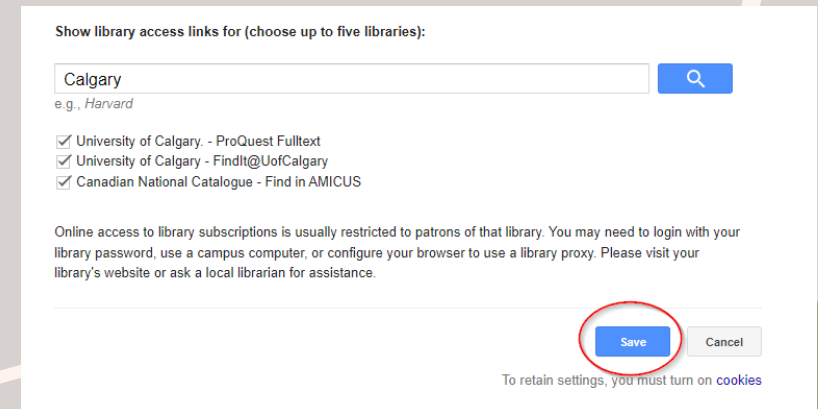
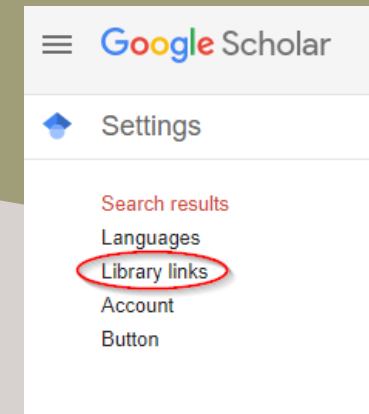
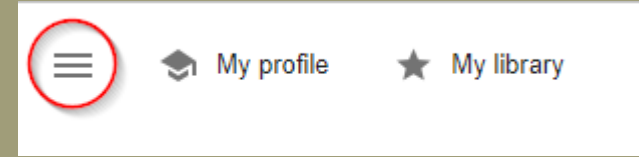
Zotero <http://libguides.uvic.ca/zotero>

Mendeley <https://libguides.ucalgary.ca/guides/endnote>

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# Google Scholar & Paywalls

1. Top left icon
2. Click on Settings
3. Click on Library Links
4. Type in Calgary and select both UCalgary options
5. Save
6. Repeat if you clear your history & cache



# Predatory Publishing

## DEFINITION

"Predatory journals and publishers are entities that prioritize self-interest at the expense of scholarship and are characterized by false or misleading information, deviation from best editorial and publication practices, a lack of transparency, and/or the use of aggressive and indiscriminate solicitation practices."

(Grudniewicz et al., 2019)

## CONFERENCES & PUBLICATIONS

- <https://libguides.ucalgary.ca/guides/scholarlycommunication/predatory>
- <https://eos.org/opinions/the-alarming-rise-of-predatory-conferences>

## OBSERVATION EXERCISE

- Social Theory & Health
- International Journal of Neurobiology

# What am I looking at?

## LIBRARY CATALOGUE

Where the (e)books are; good for finding a *known* article title, book title, journal title, database name

## ARTICLES

The results from your database search. Articles are published within journals. Can be peer-reviewed or non-peer reviewed, and classified as opinions, editorials, research, review, letters etc.

## JOURNALS

Academic publications with a topic/subject of focus. These are indexed in a database but are not the results of a search.

## OPEN ACCESS

Online dissemination practice of materials that removes cost and other access barriers

<https://libguides.ucalgary.ca/guides/scholarlycommunication/oafund>

## Databases

Where we go to conduct our search to find articles

## PEER REVIEW

Academic check and balance process. Use Ulrichsweb to search for journal titles to see if a title is peer-reviewed.

<https://ulrichsweb-serialsolutions-com.ezproxy.lib.ucalgary.ca/>

# Tips for selecting databases

## SEARCH SEVERAL DATABASES

- No database indexes all literature on a topic
- Overlap between databases is to be expected

## CONSIDER DATABASE COVERAGE

- Academic disciplines (read the About section on a publisher website)
- Types of documents (journals, conference proceedings)
- Publication dates, geographical location

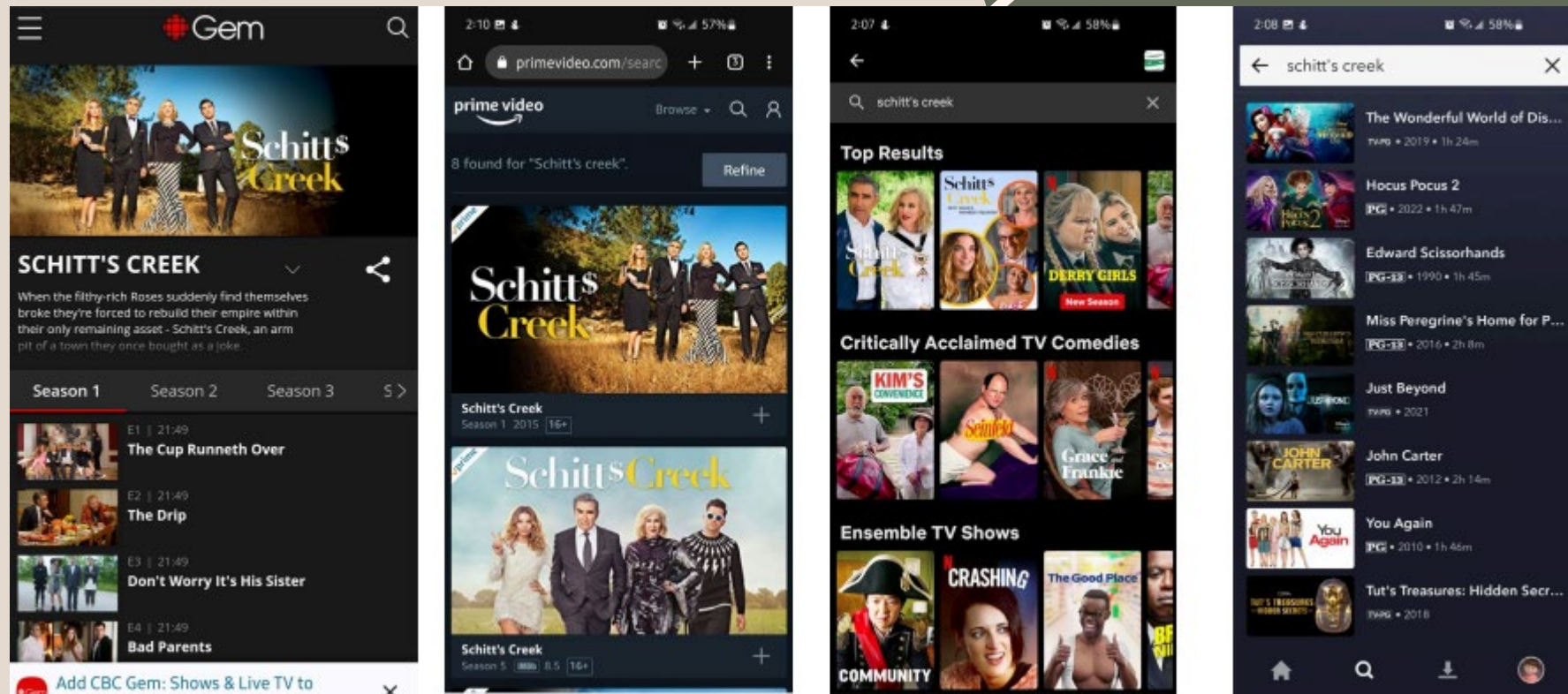
## SUGGESTIONS

- Medline
- Embase
- Cochrane Library (trials and reviews)
- CINAHL (nursing/public health)
- Web of Science (interdisciplinary)
- Scopus (interdisciplinary)
- APA Psycinfo (psychiatry/psychology/mental health)



# Academic databases are like streaming services

- Most require a paid subscription (UCalgary Library)
- Lots of options
- Some are subject specific, others are general



# The Searching Process

Establish a topic of inquiry

What literature do you need to familiarize yourself with? **Find seed papers!**

Be aware of established science, emerging topics, changing practice when determining if the juice is worth the squeeze.

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Re-frame it as an answerable question

This is essential, as screening the literature is easier if you can go back to your research question and ask yourself, does this paper address my question, or is it merely related or completely off-topic?

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Identify concepts and search terms

PICO: **Patient/problem, Intervention/exposure, Comparison, Outcome**

Focus on identifying distinct concepts if PICO doesn't work. What would the ideal article have within it to be helpful to you?

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Locate sources and search

Choose databases/grey literature (content that isn't traditionally academically published) and create your search, choosing one source to build your master search before going to other databases (this will likely take a couple tries) **Keep a file open to record your searches (text, not screenshot)**

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Export and synthesize

Send your results to Covidence or a citation manager

When writing a literature review, you're identifying themes and connecting your position to what the literature supports or doesn't support (negative results are important).

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# Boolean Operators (AND, OR, NOT)

Searching for literature is a little like ordering a pizza. If you ask a restaurant to give you “pizza” the result will be fairly random, and if you ask the restaurant to give you everything they have on pizza, most will go to waste. Being specific with the pizza toppings will get you closer to what you want to eat!

**Example:** You want a vegetarian pizza with a variety of veggies and a thin crust.

(mushrooms OR “green pepper” OR onion) AND “thin crust”

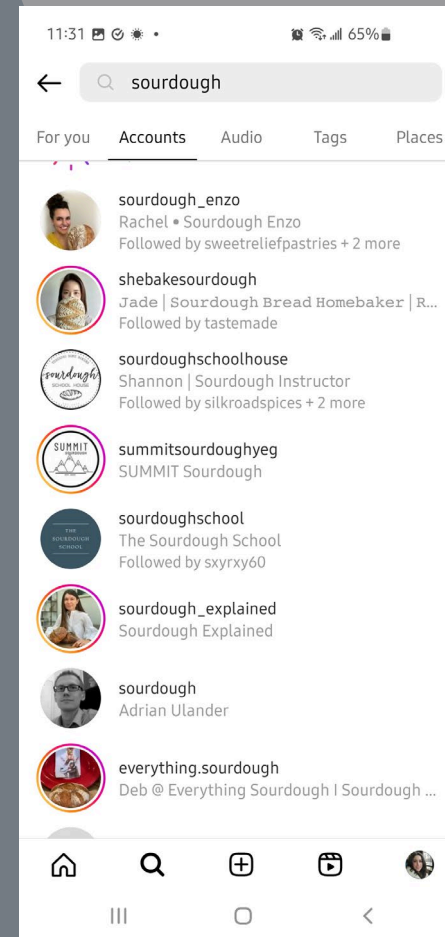
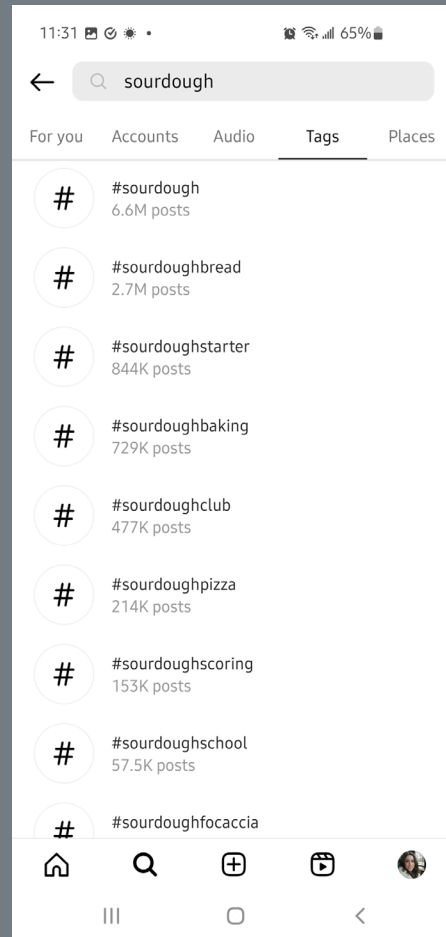
**Example:** You want a pizza with pepperoni, and peppers and mushrooms but not olives:

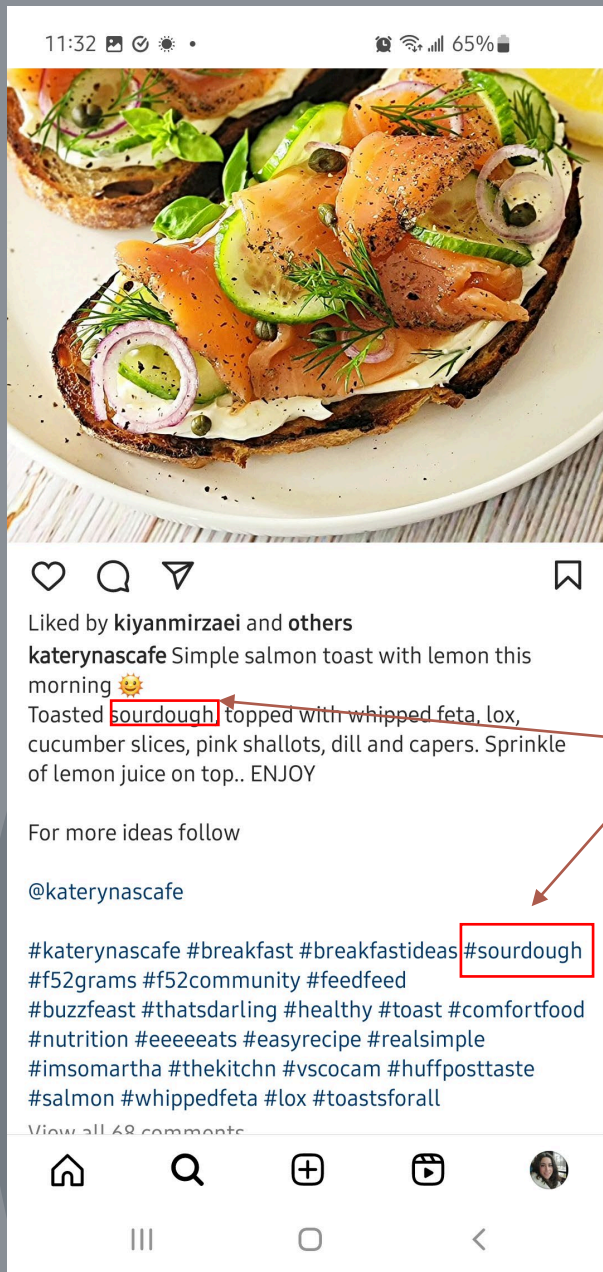
Pepperoni  
AND  
“Green pepper” OR “red pepper”  
AND  
mushrooms  
NOT  
olives

Academic databases process commands. We are writing a script (computer science lite) so that it can spit out the results from the command we’ve given it. Some are smart (like Google Scholar and Pubmed) and do some background algorithmic work to anticipate what you’re looking for. Others, like Medline, use only your strategy as written out. Both have benefits and applications where they are most advantageous.

# Medical Subject Headings vs Key Terms: A Social Media Analogy

- Medical Subject Headings (MeSH) are added to papers indexed in Medline and Pubmed
- Subject Headings are added to almost every article in other databases (Embase calls theirs “Emtree”, others, “thesaurus”)
  - These are controlled
  - Think of them like social media hashtags
- Keywords/key terms are essentially “free text”
  - Think about the last time you had to quickly scan/read a pdf...





## Cardiac Vagal Nerve Activity Increases During Exercise to Enhance Coronary Blood Flow.

Shanks J, Pachen M, Chang JW, George B, Ramchandra R

*Circulation Research*. 133(7):559-571, 2023 09 15.

[Journal Article. Research Support, Non-U.S. Gov't]

MeSH Subject Headings: Animals  
Sheep  
\*Acetylcholine  
\*Heart  
Coronary Vessels  
Cardiac Output  
Atropine / pd [Pharmacology]

Keyword Heading: acetylcholine  
autonomic nervous system  
coronary vessels  
exercise  
parasympathectomy  
vasoactive intestinal peptide

Keyword Heading Owner: NOTNLM

Abstract: **BACKGROUND:** The phrase complete vagal withdrawal is often used when discussing autonomic control of the heart during exercise. However, more recent studies have challenged this assumption. We hypothesized that cardiac vagal activity increases during exercise and maintains cardiac function via transmitters other than acetylcholine.

**METHODS:** Chronic direct recordings of cardiac vagal nerve activity, cardiac output, coronary artery blood flow, and heart rate were recorded in conscious adult sheep during whole-body treadmill exercise. Cardiac innervation of the left cardiac vagal branch was confirmed with lipophilic tracer dyes (DIO). Sheep were exercised with pharmacological blockers of acetylcholine (atropine, 250 mg), VIP (vasoactive intestinal peptide; [4Cl-D-Phe6,Leu17]VIP 25 microg), or saline control, randomized on different days. In a subset of sheep, the left cardiac vagal branch was denervated.

Database	Controlled Vocabulary	Common Keyword Fieldcodes
Medline <a href="#">Ovid Database Guide</a>	MeSH (Medical Subject Headings) Example: “trauma” maps to:  exp "Wounds and Injuries"/	.tw,kf = title/abstract/author supplied keywords ( <i>recommended</i> ) .ti = title only .ab = abstract only .mp = all fields (use sparingly) Trauma*.tw,kf
Embase <a href="#">Ovid Database Guide</a>	Emtree  Example: “trauma” maps to:  exp injury/	.tw,kf = title/abstract/author supplied keywords ( <i>recommended</i> ) .ti = title only .ab = abstract only .mp = all fields (use sparingly) Trauma*.tw,kf
APA Psycinfo <a href="#">Ovid Database Guide</a>	Subject Headings  Example: “trauma” maps to:  exp Trauma/	.tw,id = title/abstract/key concept ( <i>recommended</i> ) .ti = title only .ab = abstract only .mp = all fields (use sparingly) Trauma*.tw,id

# Pediatrics

How does real-time ultrasound compare to standard radiograph in guiding placement of peripherally inserted central catheters in newborns?

P – newborn

I – real-time ultrasound

C – radiograph

O – Peripherally inserted central catheter placement

Ovid MEDLINE(R) ALL <1946 to October 17, 2023>

<https://ezproxy.lib.ucalgary.ca/login?url=https://ovidsp.ovid.com/ovidweb.cgi?T=JS&NEWS=N&PAGE=main&SHAREDSEARCHID=opN7XEfdteNAbbbTjW8NdQ51C2XkA0zrs8opbGhPryQ6TUuAh23LonpdJxZ6ek3e>

1 Ovid MEDLINE(R) ALL <1946 to October 18, 2023>

1	exp Infant/	1257260	
2	infant*.tw,kf.	509696	
3	exp Infant, Newborn/	676904	
4	newborn*.tw,kf.	199782	
5	neonat*.tw,kf.	318150	
6	preterm*.tw,kf.	96244	
7	premature*.tw,kf.	156170	
8	1 or 2 or 3 or 4 or 5 or 6 or 7		1680041
9	exp Ultrasonography/	489293	
10	real-time ultrasound.tw,kf.	2704	
11	RTUS.tw,kf.	53	
12	9 or 10 or 11	490035	
13	exp Radiography/	1205223	
14	radiograph*.tw,kf.	274982	
15	13 or 14	1338653	
16	exp Catheterization, Peripheral/		13262
17	Peripherally inserted central catheter.tw,kf.		1267
18	PICC.tw,kf.	1732	
19	16 or 17 or 18	14405	
20	8 and 12 and 15 and 19		51

# Quick Tips for OVID Databases

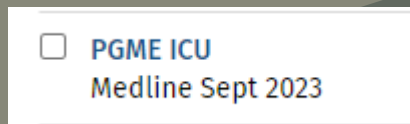
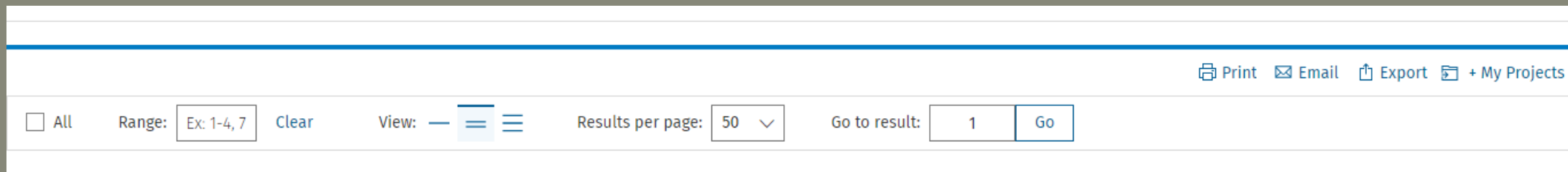
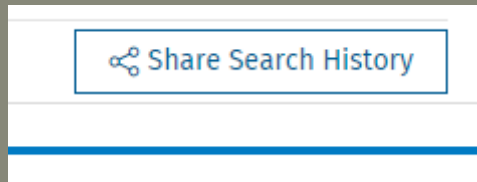
- Resist the urge to select multiple choices UNLESS you are certain they adhere to your eligibility criteria
  - It's easier to edit a search
  - Resist choosing your keyword.mp (that will bring back the word that shows up in anywhere in a document!)
- “Scope Note” provides a scope/definition
- “Explode” will include narrower terms present if you click on the term
- “Focus” means it the database will only bring back papers where the specific MeSH term has been identified as a main focus (there can be 3-15ish MeSH terms per paper)
- At the beginning of a search, I recommend researchers choose “Include all subheadings” but this is user discretion, and you can select only what you want
- Adjacency will find two concepts with any number of words to each other (adj2, adj10 etc)
- Truncation (denoted by the asterisk \*) will replace suffix variances • Learn\* (learn, learner, learned, learning)
- The question mark (?) will identify characters that may or may not be present in a word • P?ediatric



# Saving, Sharing, Exporting

CREATE AN ACCOUNT AND SAVE YOUR WORK

- OVID will time out in 15 minutes of inactivity
- Consider using project management best practices (identify the database, the date and version of the search)



# Systematic/Scoping Reviews

Assess the timeline

[ThingLink Scenario "Welcome!"](#)

Can take anywhere from 3 months to 2 years.

Ascertain the feasibility to learn the methodology, the database searching, citation management, analysis and writeup

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Resource & learning commitments

Projects need at least 2 members for title/abstract/full text screening.

Prepare to do the searching independently, as it is your project, and your dataset.

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Create a Teams site/Google doc for the entire project

Everyone on the project has access and can be added and removed.

Document should have sign-ins and passwords.

If you leave a project, re-assign logins to the PI

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Is an evidence synthesis needed?

Has there been a scoping or systematic review published on your topic in the past year or two?

Can you find exemplar seed papers addressing your research paper (is there enough out there to synthesize?)

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Prepare a project protocol

Upload to PROPSERO or BMJOpen

Upload to Ucalgary PRISM if doing a scoping review

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The background features a light grey base with several abstract elements: a large, solid olive-green shape on the right side, a large, solid terracotta shape on the bottom left, and a faint, grey outline of a leafy branch in the top left corner. The text is centered on the page.

# thank you

Caitlin McClurg

[Ask Us | University of Calgary Library \(ucalgary.ca\)](https://ucalgary.ca)