## SMARTER SEARCHES: ADVANCED PUBMED TIPS FOR RESEARCHERS

Diana Louden, Translational Research Librarian, UW Health Sciences Library

## 2.2 Billion PubMed Searches in FY2012

# 22% increase in worldwide use of PubMed from FY 2011 to FY 2012.

How many of those searches were yours?

How many yielded the perfect article at the top of the page?

http://www.nlm.nih.gov/bsd/bsd\_key.html

## Savvier Searches: Making PubMed Work for You

- Common Questions & Points of Confusion
- Tips, Explanations, & Work-Arounds
- Goal: Equip You With Tools to be a More Effective Searcher. Find What You Need Faster.
- 15-Minute Rule (If you can't find what you need after
  - 15 minutes of searching, contact your librarian!)

## Your Librarian Can Provide One-On-One Research Assistance

### http://libguides.hsl.washington.edu/liaisons

UW Libraries	NNLM Pacific Northwest Regio	n   HEAL-WA	UW Home   MyUW	Maps   UW Directories off-campus access
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resources	L.	AIDS Clinical Trials Unit	Sherry Dodson	
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departme	nt listed to the right, or	Alcohol & Drug Abuse Institute	Ann Gleason	
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within 24 h	es email response is	Cardiology	Sherry Dodson	<ul> <li>Jankowski, Terry Ann</li> </ul>
		Center on Human Development & Disability	Leilani St. Anna, <b>and</b> Janet Schnall	Louden, Diana     Oberg, Lisa     Rich, Loappe
		Clinical Scholars Program	Sherry Dodson	Safranek, Sarah
		Comparative Medicine	Terry Ann Jankowski	<ul> <li>St. Anna, Leilani</li> </ul>
		Critical Care Medicine	Sherry Dodson	<ul> <li>Schnall, Janet</li> </ul>

### Why did I only find two articles by Paul O. Sheppard in PubMed? I know he wrote more than that.

	PubMed    sheppard paul o  RSS Save search Advanced
Pitfall #1	Display Settings:       Summary, Sorted by Recently Added       Send to:       Send to:
	Fox BA, Sheppard PO, O'Hara PJ. PLoS One. 2009;4(3):e4933. doi: 10.1371/journal.pone.0004933. Epub 2009 Mar 20. PMID: 19300512 [PubMed - indexed for MEDLINE] Free PMC Article Related citations
	<ul> <li>A glycoprotein hormone expressed in corticotrophs exhibits unique binding properties on thyroid- stimulating hormone receptor.</li> <li>Okada SL, Ellsworth JL, Durnam DM, Haugen HS, Holloway JL, Kelley ML, Lewis KE, Ren H, Sheppard PO, Storey HM, Waggie KS, Wolf AC, Yao LY, Webster PJ. Mol Endocrinol. 2006 Feb;20(2):414-25. Epub 2005 Oct 6.</li> <li>PMID: 16210345 [PubMed - indexed for MEDLINE] Free Article Related citations</li> </ul>

# Author Searching: Greatest accurate retrieval by using last name and initials

	PubMed    sheppard po  RSS Save search Advanced
	Display Settings: ♡ Summary, 50 per page, Sorted by Recently Added Send to: ♡
	Results: 17
	<ol> <li>Interferon-lambda family.</li> <li>Fox BA, Sheppard PO, O'Hara PJ.</li> <li>PLoS One. 2009;4(3):e4933. doi: 10.1371/journal.pone.0004933. Epub 2009 Mar 20.</li> <li>PMID: 19300512 [PubMed - indexed for MEDLINE] Free PMC Article Related citations</li> </ol>
Tip #1	<ul> <li>A glycoprotein hormone expressed in corticotrophs exhibits unique binding properties on thyroid-</li> <li>stimulating hormone receptor.</li> <li>Okada SL, Ellsworth JL, Durnam DM, Haugen HS, Holloway JL, Kelley ML, Lewis KE, Ren H,</li> <li>Sheppard PO, Storey HM, Waggie KS, Wolf AC, Yao LY, Webster PJ.</li> <li>Mol Endocrinol. 2006 Feb;20(2):414-25. Epub 2005 Oct 6.</li> <li>PMID: 16210345 [PubMed - indexed for MEDLINE] Free Article</li> <li>Related citations</li> </ul>
	<ul> <li>Cloning and characterization of a human orphan family C G-protein coupled receptor GPRC5D.</li> <li>Bräuner-Osborne H, Jensen AA, Sheppard PO, Brodin B, Krogsgaard-Larsen P, O'Hara P. Biochim Biophys Acta. 2001 Apr 16;1518(3):237-48.</li> <li>PMID: 11311935 [PubMed - indexed for MEDLINE] Related citations</li> </ul>
	<ul> <li>Platelet-derived growth factor C (PDGF-C), a novel growth factor that binds to PDGF alpha and beta</li> <li>receptor.</li> <li>Gilbertson DG, Duff ME, West JW, Kelly JD, Sheppard PO, Hofstrand PD, Gao Z, Shoemaker K, Bukowski TR, Moore M, Feldhaus AL, Humes JM, Palmer TE, Hart CE.</li> <li>J Biol Chem. 2001 Jul 20;276(29):27406-14. Epub 2001 Apr 10.</li> <li>PMID: 11297552 [PubMed - indexed for MEDLINE] Free Article Related citations</li> </ul>

Searching for an Author's Full Name Only Works for Recent Articles

### □ Looks are deceiving.

**Explanation** 

- Ability to search with an author's full name was enabled starting in 2002, but was not retroactive.
- For the most thorough results, search for the author's last name plus initials (no punctuation)
- Using the field tag [au] is optional
- Example: Sheppard PO

I wanted to find a specific article, not every article on a topic.

> I read a news article reporting on a new analysis of the correlation between hormone replacement therapy and breast cancer. The news article only gave the journal name and the lead investigator's name.

### Pitfall #2

- How can I find this specific article and not every article about HRT and breast cancer?
- A PubMed search for "breast cancer hormone replacement therapy" turns up over 4,000 references.

## Use Single Citation Matcher to Find a Specific Known Article

Tip	#2
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Publed.gov	PubMed •		Sear
National Institutes of Health	Ac	dvanced	
	PubMe	ed	PubReader
	PubMed c	omprises more than 22 million citations for biomedical literature	e from
	MEDLINE,	life science journals, and online books. Citations may include	links to A whole new way
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Using PubMed PubMed Quick Start Guid Full Text Articles PubMed FAQs PubMed Tutorials	<u>e</u>	PubMed Tools PubMed Mobile Single Citation Matcher Batch Citation Matcher Clinical Queries	Iterature at PubMed Central       Iterature at PubMed Central         More Resources         MeSH Database         Journals in NCBI Databases         Clinical Trials         E-Utilities

## Fill in Just the Fields You're Sure Of

### **PubMed Single Citation Matcher**

Use this tool to find PubMed citations. You may omit any field.

Journal • Help	Journal of the National Cancer Institute		
Date	2013 (month and day are optional)		
Details	Volume Issue Fire	st page	
Author name • Help	Chlebowski R		
Limit authors Title words	Only as first author Only as last	author	
Search	<u>Clear form</u>		

### Explanation

## Easily spot the article you're looking for and follow the link to the full text.

		<u>Send to:</u> ∨	ADVANCE ACCESS OXFORD JOURNALS	Check for Full Text
J Natl Cancer Inst. 2013 Mar 29. [Epub	ahead of print]			
Estrogen Plus Progestin Study. Chlebowski RT, Manson JE, Ander Newcomb PA, Prentice RL.	and Breast Cancer Incidence and Mortality in the Women's Healt son GL, Cauley JA, Aragaki AK, Stefanick ML, Lane DS, Johnson KC, Wactawski-Wende J	th Initiative Observational S	ave items ☆ Add to Favorites ▼	•
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Rowan I. Chie Dorothy S. La Ross L. Prenti	bowski, JoAnn E. Manson, Garnet L. Anderson, Jane A. Caule ne, Karen C. Johnson, Jean Wactawski-Wende, Chu Chen, Lih- ce	y, Aaron K. Aragaki, Marcia ong Qi, Shagufta Yasmeen,	L. Stefanick, Polly A. Newcomb	dy
Rowan I. Chie Dorothy S. La Ross L. Prenti Manuscript re	bowski, JoAnn E. Manson, Garnet L. Anderson, Jane A. Caule ne, Karen C. Johnson, Jean Wactawski-Wende, Chu Chen, Lih ce ceived August 27, 2012; revised January 20, 2013; accepted Fe	<b>tive Observat</b> By, Aaron K. Aragaki, Marcia Iong Qi, Shagufta Yasmeen, Bbruary 13, 2013.	L. Stefanick, Polly A. Newcomb	<b>dy</b> <sub>0,</sub>
Rowan I. Chie Dorothy S. La Ross L. Prenti Manuscript re CA, 90502 (e-ma	bowski, JoAnn E. Manson, Garnet L. Anderson, Jane A. Caule ne, Karen C. Johnson, Jean Wactawski-Wende, Chu Chen, Lih ce ceived August 27, 2012; revised January 20, 2013; accepted Fe <b>to:</b> Rowan T. Chlebowski, MD, PhD, Los Angeles Biomedical Research Inst- il: rowanchlebowski@gmail.com).	<ul> <li>Aaron K. Aragaki, Marcia</li> <li>Aaron Qi, Shagufta Yasmeen</li> <li>Shruary 13, 2013.</li> <li>titute at Harbor-UCLA Medical Ce</li> </ul>	I L. Stefanick, , Polly A. Newcomb	<b>dy</b> o, Torrance,

### Pitfall #3

	PubMed • il28b polymorphism	Search
National Institutes of Health	RSS Save search Advanced	Help
Show additional filters	Display Settings:  Summary, 50 per page, Sorted by Recently Added Send to:	Filter your results:
Article types	See 406 articles about II 200 gene function	All (383)
Clinical Trial	See also: L28B interleukin 28B (interferon, lambda 3) in the Gene database	Clinical Trial (38)
Review	il28b in Bos taurus   Gallus gallus   Macaca mulatta   All 15 Gene records	English (367)
Systematic Reviews		Free Full Text (101)
more	Results: 1 to 50 of 383 <<< First < Prev Page 1 of 8 Next> Last>>	<u>Humans (338)</u>
Text availability	Role of Interleukin-28B Polymorphism as a Predictor of Sustained Virological Response in Patients	Links to Gene (170)
Abstract available	1. with Chronic Hepatitis C Treated with Triple Therapy: A Systematic Review and Meta-Analysis.	<u>Meta-analysis (5)</u>
Free full text available Full text available	Bota S, Sporea I, Sirli R, Neghină AM, Popescu A, Străin M. Clin Drug Investig. 2013 Mar 27. (Enult abaad of prinți)	Other Animals (9)
D L P C	PMID: 23532802 [PubMed - as supplied by publisher]	Review (49)
dates	Related citations	University of Washington Online (311)
5 years	Lack of clinical and histological progression of chronic hepatitis C in individuals with true persistently	UW author affiliation (1)
10 years	2. normal ALT: the result of a 17-year follow-up.	Manage Filters
Custom range	Nunnari G, Pinzone MR, Cacopardo B.	
Species	J Viral Hepat. 2013 Apr;20(4):e131-7. doi: 10.1111/jvh.12029. Epub 2012 Dec 5. PMID: 23490382 [PubMed_in process]	Related searches
Other Animals	Related citations	il28b polymorphism hcv
	Constitution is boot 10000 lists to the detection of excitational blood encountries allo	
Clear all	<ol> <li><u>Genetic variations in nost iE266 links to the detection of perpheral blood mononuclear cells-</u></li> <li>associated benatitis C virus RNA in chronically infected patients</li> </ol>	PMC Images search for <i>il28b</i>
Show additional filters	Angulo J, Pino K, Pavez C, Biel F, Labbé P, Miquel JF, Soza A, López-Lastra M.	polymorphism
	J Viral Hepat. 2013 Apr;20(4):263-72. doi: 10.1111/jvh.12076.	[
	PMID: 234903/1 [PubMed - in process] Related citations	
	IL28B Polymorphism Correlates with Active Hepatitis in Patients with HBeAg-Negative Chronic	
	<ol> <li>nepatitis b.</li> <li>Lee IC, Lin CH, Huang YH, Huo TL Su CW, Hou MC, Huang HC, Lee KC, Chan CC, Lin MW, Lin HC.</li> </ol>	
	Lee SD.	
	PLoS One. 2013;8(2):e58071. doi: 10.1371/journal.pone.0058071. Epub 2013 Feb 28.	
	PMID. 23409 142 (PUDMed - In process) Free PMC Article Related citations	
		See more (37)
	IL28B SNP screening and distribution in the French Canadian population using a rapid PCR-based text	

Gélinas JF, Fabre T, Willems P, Leung RC, George J, Willems B, Bruneau J, Shoukry NH. Immunogenetics. 2013 Mar 3. [Epub ahead of print]

There are So Many Links on the PubMed Screen.

I Just Ignore All of Them.

SNCBI Resources How To

An IL28B polymorphism determines treatment

Titles with your search terms

dknl Mv NCBI Sian Out

## Train Yourself to Focus on Key Sections

### Tip #3

# Filters: useful, common ways to narrow your search



### Train Yourself to Focus on Key Sections (continued)

Tip #3 continued

Search details lets you see how PubMed
interpreted your search. Helps you select
MeSH terms or see what to change.

Search details	
<pre>il28b[All Fields] AND ("polymorphism, genetic"[MeSH Terms] OR ("polymorphism"[All Fields] AND "genetic"[All Fields]) OR "genetic polymorphism"[All Fields] OR</pre>	н. Н



See more ...

### Train Yourself to Focus on Key Sections (continued)

#### Find related data connects you to pertinent records in NCBI scientific databases. dbSNP SNP Limits Advanced Display Settings: I Graphic Summary, 20 per page, Sorted by Default order ٠ Find related data Tip #3 Results: 19 Database: SNP • rs28416813 [Homo sapiens] Option: SNP $\mathbf{T}$ 1. continued CAGAGAGAAAAGGAGCTGAGGGAATG [C/G] AGAGGCTGCCCACTGAGGGCAGGGG Nucleotide polymorphism records from dbSNP ubMed GeneView Nution inRNA No.30 No.0MM that have current articles as submitter-provided MAF/MinorAlleleCount: G=0.3300/722 references. HGVS Names: [ NC 000019.9:q.39735644C>G ] [ NN 172139.2:q.4-335>C ] [ NT 011109.16:q.12003862C>G ] [ NV 001838496.1:q.19490655>G ] ID: 28416813 Find items rs17067123 [l lomo sapiens] 2. CACCCTCTCACACTAATCCCCAAAACC[C/T]TTTACTCAATAACTCAAACTCATCC MAE/MinorAlleleCount: 1=0.2212/483 HGVS Names: NC 000004.11:q.180048362C>T NT 016354.19:q.104596083C>T NW 001838921.1:q.40283493C>T ID: 17067123

My PubMed Search Screen Doesn't Look Like Yours

Pitfall #4

Libraries can customize PubMed to link to their electronic journal subscriptions. You can make best use of your full-text journal access by specifying your library in your My NCBI account.

Individuals can also customize PubMed within My NCBI to make it more useful. This includes modifying your search interface and filters.

## Set Up a My NCBI Account and Customize Your Filters

#### Tip #4

Set up a My NCBI Account.

Customize your filters and site preferences.

Specify your library.

Sign in when you search.

Sign in to NCBI

### http://libguides.hsl.washington.edu/myncbi

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alth Sci IYNC	iences » LibGuides » MyNCBI			dknl@uw.edu « Gu Tay	ide Admin « Dashboard « Sign s: email alerts, my ncbi, pubmed, uw online lin
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## Key Benefit of Customizing Filters: Easier Access to Full-Text Journal Articles

Everyone can use the "free full text available" filter on the left side of the screen.

\*\*\*\*\*\*\*\*

Articles can also be ordered through your library's document delivery service.  Consider limiting your search to articles available immediately through your library's electronic subscriptions.

i	Iter your results:
	All (613)
	Clinical Trial (52)
	English (590)
	<u>Humans (473)</u>
	Links to Gene (204)
	Published in the last 2 years (487)
	Review (90)
	University of Washington Online (493)

When viewing a PubMed abstract, look for your library's full-text icon (if there's no free full text icon).



Note to UW users: If the publisher's full-text link prompts you to log in or pay, and if there is no purple "UW Article Online" icon, always click on the purple & gold "Check for Full Text" icon. Many UW subscriptions can only be accessed this way. I Must Have Done Something Wrong. A Completely Irrelevant Article is at the Top of my Search Results.



### GOOGLE AND PUBMED: DIFFERENT MINDSETS

### **Google: Essential Facts**

- <u>Content</u>: The endless internet, its metadata, & other "mineable" elements as read by search algorithms.
- <u>Creator</u>: Commercial institution
- <u>Search Tips</u>: Get good results with natural language queries.
- <u>Transparency</u>: Intentional black box
- <u>Search Results</u>: Ranked by relevance based on keywords, what's popular, how many reputable sites link to it, and what you've looked at before.

### **PubMed: Essential Facts**

- <u>Content</u>: Traditional journal article database (over 5,000 journals back to 1940s) indexed by humans
- <u>Creator</u>: US Government institution
- <u>Search Tips</u>: Improve results by using defined search fields, recommended search terminology, & help screens
- <u>Transparency</u>: "Search Details" box explains how your search was interpreted.
- <u>Search Results</u>: ALL results match your search criteria. Most recent references listed first.

Tip #5: Adopt Different Mindsets for Different Search Interfaces

## Google

- Results organized with most relevant items listed first
- Optimized to connect you to the "top" references.
- Nobody looks at "all" references. Everything is shades of gray – everdecreasing grades of relevance.



- PubMed results: organized with most recent items listed first.
- Designed to retrieve ALL references that meet search criteria.
- PubMed offers some auxiliary search approaches that involve relevance ranking.

### A Multi-Step Strategy Works Best in PubMed, But There <u>Are</u> Google-Like Approaches

### Tip #5b

Google-like approaches in PubMed include looking at "Titles with your search terms" to find a few relevant references.

PubMed	<ul> <li>recombinant influenza vaccine</li> </ul>		Search
	🔝 RSS Save search Advanced	I	Help
Dis	<u>play Settings:</u>	ed by Recently Added Send to:	☑ Filter your results:
_	W 44 00 64070		All (1279)
Re	sults: 1 to 20 of 1279	<< First < Prev Page 1 of 64 Next > Last	Diagnosis/Narrow (36)
	[Introduction to novel vaccine adjuvants a	nd their role in influenza vaccination].	Etiology/Narrow (10)
1.	Haensler J.		Nursing Journals (0)
	Ann Pharm Fr. 2013 Mar;71(2):104-8. doi: 10.101	16/j.pharma.2013.01.003. Epub 2013 Mar 1. French.	Prognosis/Narrow (2)
	Related citations		Review (125)
			Systematic Reviews (7)
2	M2e-Displaying Virus-Like Particles with A	ssociated RNA Promote T Helper 1 Type Adaptive Immu	nity Therapy/Narrow (59)
Ζ.	against Influenza A.	ert M. De Sloovere, I. Doels S. Dollard C. Schenens B.	University of Washington Online (821)
	Grooten J, Fiers W, Saelens X.	ert w, De Sloovere 3, Roels 3, Pollard C, Schepens D,	Manage Filters
	PLoS One. 2013;8(3):e59081. doi: 10.1371/journ	nal.pone.0059081. Epub 2013 Mar 18.	manage - more
	PMID: 23527091 [PubMed - in process] Free I	PMC Article	
	Related citations		Results by year
	Modified vaccinia virus Ankara: Innate imr	nune activation and induction of cellular signalling.	
3.	Price PJ, Torres-Domínguez LE, Brandmü	ller C, Sutter G, Lehmann MH.	
	Vaccine, 2013 Mar 20, doi:pii: S0264-410X(13)00 PMID: 22522404 (PubMed - as supplied by public	0301-0. 10.1016/j.vaccine.2013.03.017. [Epub ahead of print]	
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	Protective efficacy of Modified Vaccinia vii	us Ankara in preclinical studies.	
4.	Volz A, Sutter G.		Destasting affects of a trianglant according to the second s
	PMID: 23523402 [PubMed - as supplied by publ	Protective efficacy of a trivalent recombinant hemagolutini	hemagglutinin protein vaccine (F [Vaccine. 2011]
	Related citations	protein vaccine (FluBlok®) against influenza in healthy	The human potential of a recombinant
	Cooperativity Between CD8+ T Cells, Non	adults: a randomized, placebo-controlled trial.	pandemic influe [Hum Vaccin Immunother. 2012]
5.	Important for Heterosubtypic Influenza Vir	Treanor JJ, El Saniy H, King J, Granam I, Izikson R, Konberger R, Patriarca P, Cox M.	Oligomeric recombinant H5 HA1 vaccine
	Laidlaw BJ, Decman V, Ali MA, Abt MC, W	Vaccine. 2011 Oct 13; 29(44):7733-9. Epub 2011 Aug 9.	produced in bacteria protects leffet [3 virol. 2012]
	D, Erikson J, Wherry EJ.		See more

Search

# Follow the "Related Citations" Link for a Set of Relevance-Ranked References

Tip #5c – another "Google like" approach:

 Identify a useful reference.

2. "Related Citations in PubMed" will connect you to a list of about 100 references on the same topic. (Click on "See all.")

<u>Display Settings:</u> ⊙ Abstract	<u>Send to:</u> ⊘	E L S E V I E R FULLTEXT ARTICLE	
Vaccine, 2011 Oct 13;29(44):7733-9. doi: 10.1016/j.vaccine,2011.07.128. Epub 2011 Aug 9.		T W/ ARTICLE Check for W	
Protective efficacy of a trivalent recombinant hemagglutinin protein vaccine (FluBlok®) against influen healthy adults: a randomized, placebo-controlled trial.	<mark>iza</mark> in	OVV ONLINE FUILIEXT	
Treanor JJ, El Sahly H, King J, Graham I, Izikson R, Kohberger R, Patriarca P, Cox M.		Save items	
University of Rochester Medical Center, 601 Elmwood Avenue, Rochester, NY 14642, USA. John Treanor@urmc.rochester.edu		🕆 Add to Favorites 🔻	
Abstract			
BACKGROUND: Development of influenza vaccines that do not use embryonated eggs as the substrate for vaccine production is a hig	h priority. We 🍟		
conducted this study to determine the protective efficacy a recombinant, baculovirus-expressed seasonal trivalent influenza virus hema	agglutinin (rHA0)	Related citations in PubMed	
vaccine (FluBlok(®)).		Safety and immunogenicity of a baculoviru	IS-
METHODS: Healthy adult subjects at 24 centers across the US were randomly assigned to receive a single injection of saline placebo	) (2304	expressed hemagglutinin influenza [JAMA	A. 2007]
subjects), or trivalent Flubiok containing 45 mcg of each FMV component (2344 subjects). Serum samples for assessment of immune hemanolutination-inhibition (HAI) were taken from a subset of subjects before and 28 days after immunization. Subjects were followed	e responses by during the	Safety, efficacy, and immunogenicity of an inactivated influenza vaccii (BMC Infect Dis	a 20101
2007-2008 influenza season and combined nasal and throat swabs for virus isolation were obtained from subjects reporting influenza-li	ke illness.	A nasally administered trivalent inactivater	4
RESULTS: Rates of local and systemic side effects were low, and the rates of systemic side effects were similar in the vaccine and pl	acebo groups.	influenza vaccine is well tolerated [Vaccine	e. 2011]
HAI antibody responses were seen in 78%, 81%, and 52% of FluBlok recipients to the H1, H3, and B components, respectively. FluBlok	lok was 44.6%	Review Seasonal influenza vaccines.	
(95% CI, 18.8%, 62.6%) effective in preventing culture-confirmed influenza meeting the CDC influenza-like illness case definition despi	te significant	[Curr Top Microbiol Immuno	ol. 2009]
antigenic mismatch between the vaccine antigens and circulating viruses.		Review Live attenuated influenza vaccine	
CONCLUSIONS: Trivalent rHA0 vaccine was safe, immunogenic and effective in the prevention of culture confirmed influenza illness, in protection against drift variants.	ncluding	(FluMist®; Fluenz™): a review of its [Drug	s. 2011]
protection against dirit variants.		Seere	eviews
Copyright © 2011 Elsevier Ltd. All rights reserved.			See all
PMID: 21835220 [PubMed - indexed for MEDLINE] Free full text			
🛨 Publication Types, MeSH Terms, Substances		Cited by 3 PubMed Central articles	
LinkOut - more resources		Safety and immunogenicity of a plant-prod recombinant hemagglutinin-based [Viruses	<b>luced</b> s. 2012]
		Pandemic influenza vaccine: characterizat A/California/07/2009 (H11 [BMC Biotechno	t <b>ion of</b> ol. 2012]
		A carboxy-terminal trimerization domain stabilizes conformational epitot [PLoS One	e. 2012]

### I Just Wanted a Few Good References, Not Thousands



Steps for Building a Search Strategy Using MeSH Terms (Medical Subject Headings)

Tip #6

Get in the PubMed Mindset.

Use a multistep strategy to conduct a thorough search and retrieve highly relevant references.

- 1. Try to identify 1-3 relevant references.
  - a. Dream up a perfect title, and search for significant words from your dream title.
  - b. Search for specific phrases using quotation marks.
- 2. Select MeSH terms that have been applied to the best references.
- 3. Build a strategy using a combination of MeSH terms, individual words, or phrases.
- Apply filters such as a publication type, a patient population, a date range, or a language.

## Find a couple of relevant references. These are your pearls.

Step #1:

Narrow your search until you can identify a couple of relevant references.  We're looking for the use of patient-derived cells in a tumor xenograft animal model.

PubMed 

patient cells tumor xenograft model

🔊 RSS Save search Advanced 🚽

- Our original search yielded 3,075 references. References weren't on target.
- Now we try a more specific search strategy requiring that the phrase "patient derived" appear in the title or abstract.



 Searching for a specific phrase narrowed our search to 103 references, and they're more relevant.

### Determine the Best MeSH Terms to Add to Your Search. Combine MeSH Terms With Other Words or Phrases.

Steps #2-3:

Select MeSH terms.

Add them to your search.

Include additional non-MeSH terms as needed. Display Settings: 🕑 Abstract

Neoplasia. 2012 Jun;14(6):519-25.

#### Sensitization of pancreatic cancer stem cells to gemcitabine by Chk1 inhibition.

Venkatesha VA, Parsels LA, Parsels JD, Zhao L, Zabludoff SD, Simeone DM, Maybaum J, Lawrence TS, Morgan MA, Department of Radiation Oncology, University of Michigan Medical School, Ann Arbor, MI 48109-5637, USA.

#### Abstract

Checkpoint kinase 1 (Chk1) inhibition sensitizes pancreatic cancer cells and tumors to gemcitabine. We hypothesized that Chk1 inhibition would sensitize pancreatic cancer stem cell markers CD24, CD44, and ESA. We determined the percentage of marker-positive cells and their tumorinitiating capacity (by limiting dilution assays) after treatment with gemcitabine and the Chk1 inhibitor, AZD7762. We found that marker-positive cells were significantly reduced by the combination of gemcitabine and AZD7762. In addition, secondary tumor initiation was significantly delayed in response to primary tumor treatment with gemcitabine + AZD7762. In addition, secondary tumor initiation was significantly delayed in response to primary tumor treatment with gemcitabine + AZD7762. In addition, secondary tumor initiation was significantly delayed in response to primary tumor treatment with gemcitabine + AZD7762. Compared with control, gemcitabine, or AZD7762 alone. Furthermore, for the same number of stem cells implanted from gemcitabine + versus gemcitabine + AZD7762-treated primary tumors, secondary tumor initiation at 10 weeks was 83% versus 43%, respectively. We also found that pS345 Chk1, which is a measure of DNA damage, was induced in marker-positive cells and the tumor-initiating capacity of pancreatic cancer stem cells. Furthermore, the finding that the Chk1-mediated DNA damage response was greater in stem cells than in non-stem cells suggests that Chk1 inhibition may selectively sensitize pancreatic cancer stem cells to gemcitabine, thus making Chk1 a potential therapeutic target for improving pancreatic cancer therapy.

PMID: 22787433 [PubMed - indexed for MEDLINE] PMCID: PMC3394194 Free PMC Article

PubMed

Add to Search

MeSH

Images from this publication. See all images (4) Free text

#### Publication Types, MeSH Terms, Substances, Grant Support

Publication Types Research Support, N.I.H., Extramural Research Support, Non-U.S. Gov't

#### MeSH Terms Animals

Antimetabolites, Antineoplastic/administration & dosage Antimetabolites, Antineoplastic/pharmacology\* Deoxycytidine/administration & dosage Deoxycytidine/analogs & derivatives\* Deoxycytidine/pharmacology Humans Mice Mice, Inbred NOD Mice, SCID Neoplastic Stem Cells/drug effects\* Neoplastic Stem Cells/metabolism\* Pancreatic Neoplasms/drug therapy Pancreatic Neoplasms/metabolism\* Protein Kinase Inhibitors/administration & dosage Protein Kinase Inhibitors/pharmacology\* Protein Kinases/metabolism\*

Tumor Burden/drug effects Xenograft Model Antitumor Assays

Substances

Antimetabolites, Antineoplastic Protein Kinase Inhibitors gemoitabine Deoxyoxtidine Protein Kinases Checkpoint kinase 1 Xenograft Model Antitumor Assays[MeSH Terms] AND Pancreatic Neoplasms[MeSH Terms] AND "patient derived"

Send to:

## Step #4: Apply Filters If Appropriate

Xenograft Model Antitumor Assays[MeSH Terms] AND Pancreatic Neoplasms[MeSH Terms] AND "patient derived"

S NCBI Resources	∂ How To 🖸	<u>dknl My NCBI Sign Out</u>
Public gov US National Library of Medicine National Institutes of Health	PubMed <ul> <li>Xenograft Model Antitumor Assays[MeSH Terms]) AND Pancreatic Neoplasms[MeSH Terms]) AND Pancreatic Neoplasms[MeSH Terms]</li> <li>RSS Save search Advanced</li> </ul>	ms] AND "pa'⊗ Search Help
Show additional filters	<u>Display Settings:</u> ♥ Summary, 50 per page, Sorted by Recently Added <u>Send to:</u> ♥	Filter your results:
Article types more Text availability Abstract available	Sensitization of pancreatic cancer stem cells to gemcitabine by Chk1 inhibition.         1. Venkatesha VA, Parsels LA, Parsels JD, Zhao L, Zabludoff SD, Simeone DM, Maybaum J, Lawrence TS, Morgan MA	All (8) Clinical Trial (0) <u>English (8)</u> <u>Humans (8)</u>
Free full text available Full text available Publication dates 5 years	Norgan MA.     Neoplasia. 2012 Jun;14(6):519-25.     PMID: 22787433 [PubMed - indexed for MEDLINE] Free PMC Article <u>Related citations</u> The gamma secretase inhibitor MRK-003 attenuates pancreatic cancer growth in preclinical models.	Links to Gene (0) <u>Published in the last 2 years (3)</u> Review (0) <u>University of Washington Online (5)</u>
10 years Custom range <b>Species</b> Humans Other Animals	<ol> <li>Mizuma M, Rasheed ZA, Yabuuchi S, Omura N, Campbell NR, de Wilde RF, De Oliveira E, Zhang Q, Puig O, Matsui W, Hidalgo M, Maitra A, Rajeshkumar NV. Mol Cancer Ther. 2012 Sep;11(9):1999-2009. doi: 10.1158/1535-7163.MCT-12-0017. Epub 2012 Jul 2. PMID: 22752426 [PubMed - indexed for MEDLINE] <u>Related citations</u></li> </ol>	UW author affiliation (0) <u>Manage Filters</u> 4 free full-text articles in PubMed
<u>Clear all</u> <u>Show additional filters</u>	<ul> <li>MK-1775. a potent Wee1 inhibitor, synergizes with gemcitabine to achieve tumor regressions,</li> <li>selectively in p53-deficient pancreatic cancer xenografts.</li> <li>Rajeshkumar NV, De Oliveira E, Ottenhof N, Watters J, Brooks D, Demuth T, Shumway SD, Mizuarai S, Hirai H, Maitra A, Hidalgo M.</li> <li>Clin Cancer Res. 2011 May 1;17(9):2799-806. doi: 10.1158/1078-0432.CCR-10-2580. Epub 2011 Mar 9.</li> <li>PMID: 21389100 [PubMed - indexed for MEDLINE] Free PMC Article Related citations</li> </ul>	Sensitization of pancreatic cancer stem cells to gemcitabine by Chk1 inhibition. [Neoplasia. 2012] MK-1775, a potent Wee1 inhibitor, synergizes with gemcitabine to achie [Clin Cancer Res. 2011] Mechanism of radiosensitization by the Chk1/2 inhibitor AZD7762 involves abi [Cancer Res. 2010]

My Search Strategies Build on Each Other, So I Wade Through the Same References Over and Over.

### Here's my previous search strategy:

Xenograft Model Antitumor Assays[MeSH Terms]) AND Pancreatic Neoplasms[MeSH Terms] AND "patient derived"

Pitfall #7

### Now I want to conduct this search:

Pancreatic Neoplasms[MeSH Terms] AND "patient derived"

But I don't want to see the references I've already looked at. (The first set of references would be a subset of my new search.)

## Use Advanced Search Builder to Combine Searches or Exclude Previous Searches



## I Checked PubMed, and Nobody Has Ever Done What I'm Planning To Do

### Pitfall #8

(15)	(43) International Publication Date 17 November 2011 (17.11.2011)	T	(10) International Publication Number WO 2011/142858 A2	
(51)	International Patent Classification: C07K 14/435 (2006.01) A61K 47/42 (2006.01) A61K 3077 (2006.01) G81N 33/87/4 (2006.01) C77K 1980 (2006.01) International Application Number:	(81)	Designated States (index otherwise indicated, for every kind of sational protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, AC, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, TC, JF, TG, FS, FJ, GH, GD, GF, GH, CM, GT, FN FBR HU ID JL. JN SI, PK KG KM NN KP	
(22)	PCT/US2011/02375 International Filing Date: 4 February 2011 (04.02.201 Villan Language:	1)	KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, YG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR,	
(26)	Publication Language. Englis	ni di ann	TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.	
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,	HUTCHINSON CANCER RESEARCH CENTE [US/US]; 1100 Fairview Avenue North, Seattle, W 98109 (US).	R	Fin, Gampan (ed., R., Br., Bo, Ch. C., L. D., Da, EE, ES, FJ, FR, GB, GR, IR, HU, E, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CL CM, GA, GN, GQ, 2014) 101 Aug. No. 2017 170 170	
(72) (75)	Inventor; and Inventor/Applicant (for US only): OLSON, James, N (US/US): 4733 Lake Washington Blvd, South, Seatt WA 98118 (US).	L Pubi e,	CW, ML, MS, NY, SN, HJ, HJ.	
(74)	Agent: RENZONI, George, E.; Christensen ( Johnson Kindness PLLC, 1420 Fifth Avenue, Sui	lin	icalTrials.gov	



🖌 U.S. Department o	f Health & Human Services	$\rangle$				Ted Dice A A A
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Abstract Text:						
DESCRIPTION (pro	wided by applicant) High-	throughput screening (HTS) is a ind disease nothways. As autom	technique for searching lar ated image analysis for cu	ge libraries of cher tured cells has imp	nical or genetic perturba proved, microscopy has	ents, to find new emerged as one of the

#### Trial record 17 of 1193 for: translational

Previous Study | Return to List | Next Study >

#### Personalized Translational Platform for Biomarker Discovery in Brain Tumors

This study is currently recruiting participants.	ClinicalTrials.gov Identifier:
Verified December 2012 by Brigham and Women's Hospital	NC101240161
Sponsor: Brigham and Women's Hospital	First received: November 10, 2010 Last updated: December 20, 2012 Last verified: December 2012
Collaborators: Society of Nuclear Medicine and Molecular Imaging General Electric	History of Changes

Information provided by (Responsible Party): Laura L. Horky, Brigham and Women's Hospital

## Try Multiple Search Strategies Before Drawing Your Conclusion

We're looking for clinical trials studying inhibitors of the quorum sensing mechanism (bacterial cell-to-cell communication) in *Pseudomonas*. Limiting our search to clinical trial reports yielded zero references.

SNCBI Resources	🛛 How To 🖸		<u>dkni</u> <u>My NCBi</u>	<u>Sign Out</u>
Publiced.gov US National Library of Medicine National Institutes of Health	PubMed	Quorum Sensing [mesh] AND Pseudomonas [mesh] AND inhibitors     Save search Advanced	Search	Help
<u>Show additional filters</u> <u>Clear all</u>	<ul><li>See</li><li>No it</li></ul>	the search <u>details</u> . ems found.	Search details	
Article types ✓ Clinical Trial More	clear 🚺 Filter	s activated: Clinical Trial <u>Clear all</u>	Quorum Sensing[mesh] AND Pseudomonas[mesh] AND inhibitors[All Fields] AND (Clinical Trial[ptyp])	
Publication dates Custom range			Search	i See more

Is it really true that nobody has undertaken a clinical trial to specifically study drugs interfering with "quorum sensing" in Pseudomonas?

### Tip #8a

Try multiple search strategies before drawing your conclusion.

## Try Another Search Strategy Using MeSH Terms and Subheadings

Tip #8a, continued:

Look up terms in the MeSH database.

Use subheadings to focus on a particular aspect of a topic. By choosing the "Quorum Sensing" MeSH term and the "drug effects" subheading, we'll limit our search to articles that discuss the effects of any drugs on quorum sensing.

SNCBI Resources How To			dknl My NCBI	Sign O
MeSH MeSH	✓ Limits Advanced		Search	He
<u>Display Settings:</u>		Switch from the PubMed database to the MeSH database.	PubMed search builder	
Quorum Sensing A phenomenon where microorganisms when a substance accumulates to a si Year introduced: 2007	communicate and coordinate their b ufficient concentration. This is most o	ehavior by the accumulation of signaling molecules. A reaction occurs commonly seen in bacteria.	"Quorum Sensing/drug effects" [Mesh]	•
PubMed search builder options Subheadings:			Add to search builder AND	
genetics	Immunology physiology	□ radiation emects	You <mark>Tub</mark>	J Tuto
Restrict to MeSH Major Topic.	below this term in the MeSH hierarch	ıy.	Related information PubMed	
Tree Number(s): G04.299.122.700, G0 Entry Terms:	6.590.580.700		PubMed - Major Topic Clinical Queries	
<ul> <li>Sensing, Quorum</li> <li>Quorum Quenching</li> </ul>			NLM MeSH Browser	
Quenching, Quorum     Quenchings, Quorum			Recent activity	Off Cl
Quorum Quenchings Previous Indexing:			Q quorum sensing (7)	<u>M</u>
<u>Cell Communication (1994-2006</u>	51		PubMed Help - PubMed Help	Books

# Slightly modifying the search yielded three references we didn't find the first time.

### Explanation:

We didn't require the specific word "inhibitors."

Instead, we used a subheading that encompassed the <u>concept</u> of inhibition, as well as other related topics.

S NCBI Resources	s ⊠ How To ⊠		<u>dknl My NCBI Sign Out</u>
Publiced.gov US National Library of Medicine National Institutes of Health	PubMed 🗸	("Quorum Sensing/drug effects"[Mesh]) AND "Pseudomonas"[Mesh].	Search Help
Show additional filters	<u>Display Settii</u>	gs: ♥ Summary, Sorted by Recently Added Send to: ♥	Filter your results:
<u>Clear all</u> Article types ✓ Clinical Trial More Text availability Abstract available Free full text available Full text available	clear Results: 3 Filters act Azithrom 1. guorum s van Deld Intensive ( PMID: 225 Related ci	rated: Clinical Trial <u>Clear all</u> r <u>cin to prevent Pseudomonas</u> aeruginosa ventilator-associated pneumonia by inhibition of ensing: a randomized controlled trial. en C, Köhler T, Brunner-Ferber F, François B, Carlet J, Pechère JC. tare Med. 2012 Jul;38(7):1118-25. doi: 10.1007/s00134-012-2559-3. Epub 2012 Apr 20. 27075 [PubMed - indexed for MEDLINE] ations	All (3) <u>Clinical Trial (3)</u> <u>English (3)</u> <u>Humans (3)</u> Links to Gene (0) <u>Published in the last 2 years (1)</u> Review (0) <u>University of Workington Optime (2)</u>
Publication dates 5 years 10 years Custom range Species	Quorum     Z. Köhler T,     PLoS Patr     PMID: 204     Related ci	Sensing inhibition selects for virulence and cooperation in Pseudomonas aeruginosa. Perron GG, Buckling A, van Delden C. og. 2010 May 6;6(5):e1000883. doi: 10.1371/journal.ppat.1000883. 53812 [PubMed - indexed for MEDLINE] Free PMC Article ations	UW author affiliation (0) <u>Manage Filters</u> 36 free full-text articles in PubMed Central
Humans <u>Clear all</u> <u>Show additional filters</u>	Garlic as 3. randomiz Smyth Al Cámara Pediatr Pu PMID: 203 Related ci	an inhibitor of Pseudomonas aeruginosa quorum sensing in cystic fibrosis—a pilot ed controlled trial. R, Cifelli PM, Ortori CA, Righetti K, Lewis S, Erskine P, Holland ED, Givskov M, Williams P, M, Barrett DA, Knox A. Imonol. 2010 Apr;45(4):356-62. doi: 10.1002/ppul.21193. 20535 [PubMed - indexed for MEDLINE] ations	Reverting antibiotic tolerance of Pseudomonas aeruginosa PAO1 persister cell [PLoS One. 2012] Review Novel approaches to the treatment of Pseudomonas aeruginosa inf [Eur Respir J. 2012] Inhibition of quorum sensing-controlled virulence factor production in Pseu [Sensors (Basel). 2012]

## You May Need to Search Multiple Databases

Try other reputable databases appropriate for your topic.

Tip #8b:

### ClinicalTrials.gov

<b>C1</b> :	11			Example: "Heart attack" AND "Los Angeles"	
A service of the U.S. National Institutes of Health		rais.gov	Search for studies:	"quorum sensing"	Search
A servic	ce of the U.S. N	lational Institutes of Health		Advanced Search   Help   Studies by Topic	Glossary
Find	Studies -	About Clinical Studies	Submit Studies Resources	- About This Site -	
Home	> Find Studies	> Search Results			Text Size 🔻
		м	4 studies found for: "quorum se odify this search   How to Use Searc	nsing" h Results	
L	ist By Top	oic On a Map Search	Details		
+ Show	v Display Opti	ons		무 Download 🔊 Subscribe	e to RSS
🔲 Inclu	ide only open :	studies Exclude studies with	n unknown status		
Rank	Status	Study			
1	Recruiting	Immune Function in Patie	ents With Obstructive Jaundice		
	_	Conditions:	Obstructive Jaundice; Disease as I Immune Tolerance	Reason for ERCP; Immune Dysfunction;	
		Intervention:			
2	Terminated	Azithromycin as a Quorun Associated Pneumonia	n-Sensing Inhibitor for the Preven	tion of Pseudomonas Aeruginosa Ventilat	or-
		Conditions:	Pneumonia, Ventilator-Associated;	Pseudomonas Infections	
		Interventions:	Drug: azithromycin; Drug: placebo		
3	Completed	Biological Modulation of	Bacterial QSSMs, Innate and Adap	tive Immunity by Antibiotics, Probiotics ar	ıd
		Prebiotics in Healthy Indi	viduals		
		Conditions:	Quorum Sensing; Prebiotics; Prol	biotics; Sepsis	
		Interventions:	Dietary Supplement: Bifidobacterium correlated compound (AHCC); Die Active hexose correlated compound	n longum BB536; Dietary Supplement: Active tary Supplement: Bifidobacterium longum BB5 (AHCC);	hexose 36 and
			Dietary Supplement: Corn starch pla	acebo capsule; Drug: Azithromycin	
4	Completed	The Infective Pulmonary	Exacerbations in Cystic Fibrosis -	an Ecological Perspective	
		Condition:	Cystic Fibrosis		
		Intervention:			

## Try Multiple Searches and Multiple Databases. Contact a Librarian for Assistance

#### Remember:

PubMed does not contain ALL biomedical literature.

PubMed does not contain conference publications.

What you are looking for may not be in a journal article.











Structure: three-dimensional macromolecular structures
 Taxonomy: organisms in GenBank
 SNP: short genetic variations
 dbVar: Genomic structural variation

Husky SciVal Experts



Research Portfolio Online Reporting Tools (RePORT)

US PATENT & TRADEMARK OFFICE PATENT APPLICATION FULL TEXT AND IMAGE DATABASE I Don't Have Time to Go Through All of These References Right Now

> Since you've done the work to build a good search strategy, you don't want to lose it.

Pitfall #9

- PubMed will save your work for 8 hours, but to be on the safe side, save your references in a "collection."
- If you're working with a group, consider sharing your search results with your colleagues using EndNote, Mendeley, or another citation manager.

## Use MyNCBI to Track Your Searches and Save Your References in Collections

Tip #9a

Sign in to My NCBI when you search.

#### Sign in to NCBI

Save groups of references within a "collection" in My NCBI.

- Collections can be held indefinitely, modified, or discarded.
- Using collections lets you take advantage of links to full-text articles and to other NCBI databases.

Collection Name		Items	Settings/Sharing	Туре	
immunogenicity	<u>edit</u>	23	Private	PubMed	
gelatin/collagen	<u>edit</u>	2	Private	PubMed	
HCV clearance	<u>edit</u>	2	Private	PubMed	
xenotransplantation immunology	<u>edit</u>	23	Private	PubMed	
good thrombin-preclinical refs	<u>edit</u>	8	Private	PubMed	
Blood-borne pathogens examples for new alert	<u>edit</u>	7	Private	PubMed	
topical hemostat trials for Laura	<u>edit</u>	75	Private	PubMed	
VIG new technology	<u>edit</u>	52	Private	PubMed	
indocyanine green	<u>edit</u>	6	Private	PubMed	l
companion diagnostics	<u>edit</u>	25	Private	PubMed	

## Use a Citation Manager Such as EndNote or Mendeley to Save and Share Your Work

### Tip #9b

Use a citation manager to:

1) Save useful references & associated PDF files.

2) Share references with colleagues.

3) Easily cite references when writing in Word.

...Bibliographies Made Easy™

Publed.gov US National Library of Medicine National Institutes of Health	Pu	ed  v quorum sensing/drug effects [mesh]  RSS Save search Advanced	Search H
Show additional filters		Display Settings: ♥ Summary, Sorted by Recently Added	<mark>o:</mark>
<u>Clear all</u>		Results: 3 Selected: 3	linhoard
Article types ✓ Clinical Trial	clear	Filters activated: Clinical Trial <u>Clear all</u> Collections     Order     N	F-mail c tolerance of Pseudomonas My Bibliography persister cell [PLoS One. 20
more		Azithromycin to prevent Pseudomonas aeruginosa ventilator-associate     Citation manager	holerae in nutrient-poor
l <b>ext availability</b> Abstract available Free full text available Full text available		<ul> <li>van Delden C, Köhler T, Brunner-Ferber F, François B, Carlet J, Pechè Intensive Care Med. 2012 Jul;38(7):1118-25. doi: 10.1007/s00134-012-2559-3. Ep PMID: 22527075 [PubMed - indexed for MEDLINE]</li> <li>Download 3 citations.</li> </ul>	th external citation erization of the small heat 12p from Car [PLoS One. 20 See all (9
Publication dates		Quorum sensing inhibition selects for virulence and cooperation in Psel	
5 years 10 years Custom range <b>Species</b>		<ul> <li>Köhler T, Perron GG, Buckling A, van Delden C.</li> <li>PLoS Pathog. 2010 May 6;6(5):e1000883. doi: 10.1371/journal.ppat.1000883.</li> <li>PMID: 20463812 [PubMed - indexed for MEDLINE] Free PMC Article Related citations</li> </ul>	Database: Select
Humans		<ul> <li>Garlic as an inhibitor of Pseudomonas aeruginosa quorum sensing in cystic fibrosisa pilot</li> <li>randomized controlled trial.</li> </ul>	Search details
<u>Clear all</u> Show additional filters		Smyth AR, Cifelli PM, Ortori CA, Righetti K, Lewis S, Erskine P, Holland ED, Givskov M, Williams P Cámara M, Barrett DA, Knox A. Pediat Pulmonol. 2010 Apr;45(4):356-62. doi: 10.1002/ppul.21193. PMID: 20306535 [PubMed - indexed for MEDLINE] Related citations	P, "quorum sensing/drug effects"[Mesh Terms] AND Clinical Trial[ptyp]

# I'd like to keep up with the literature in my field, but it's too overwhelming.



http://www.flickr.com/photos/hikingartist/

## Determine a Reasonable Scope; Set up a Current Awareness Alert

Tip #10	PubMed	3H]
Automated alerts are an	Display Settings: ♥ Summary, 50 per page, Sorted by Recently Added Send to: ♥	Fil
essential tool	Results: 1 to 50 of 53         <<	
for keeping up with the literature.	<ul> <li>Research as curriculum: engaging undergraduates and community residents in immigrant health</li> <li>research partnerships.</li> <li>Martinez LS, Perea FC, Ursillo A, Pirie A, Ndulue UJ, Oliveira C, Gute DM.</li> <li>Prog Community Health Partnersh. 2012 Winter;6(4):491-8. doi: 10.1353/cpr.2012.0059.</li> <li>PMID: 23221295 [PubMed - indexed for MEDLINE]</li> <li>Related citations</li> </ul>	
Consider multiple current awareness alerts – each one focused on	<ul> <li>Female sex work within the rural immigrant Latino community in the southeast United States: an</li> <li>exploratory qualitative community-based participatory research study.</li> <li>Rhodes SD, Tanner A, Duck S, Aronson RE, Alonzo J, Garcia M, Wilkin AM, Cashman R, Vissman AT, Miller C, Kroeger K, Naughton MJ.</li> <li>Prog Community Health Partnersh. 2012 Winter;6(4):417-27. doi: 10.1353/cpr.2012.0054.</li> <li>PMID: 23221286 [PubMed - indexed for MEDLINE] Free PMC Article Related citations</li> </ul>	15 Ce
a different topic.	<ul> <li>Using qualitative inquiry and participatory research approaches to develop prevention research:</li> <li>validating a life course perspective.</li> <li>Lesser J, Koniak-Griffin D.</li> <li>Fam Community Health. 2013 Jan-Mar;36(1):34-41. doi: 10.1097/FCH.0b013e31826d75a7.</li> <li>PMID: 23168344 [PubMed - indexed for MEDLINE]</li> </ul>	Fe La De im Cu int

## Automatically Receive New References Added to PubMed That Match Your Search Criteria

Receive updates by email or RSS Feeds.

Contact Diana Louden (UW) or your local librarian for assistance.

### Contact your librarian for assistance with:

- Choosing a database
- Creating & refining the search strategy
- Retrieving a manageable number of references each week

🕑 My N	CBI — Saved Search Settings
Save Search succe	ssful.
Your PubMed	earch
Name of saved s	earch: engagement with immigrant communities
Search terms:	"Community-Based Participatory Research" [MeSH] AND "Emigrants and Immigrants" [MeSH]
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Would you like e	mail updates of new search results?
No, that	inks.
Yes, pl Frequ	ease. ency: Weekly -
Which	day? Friday -

## Thank you for your interest.

Diana Louden Translational Research Librarian University of Washington dknl@uw.edu