



## Being "In the Know" using the Literature

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## Takeaways

- Support & expertise of librarians
- Basic search strategies
  - Applied in PubMed
    - Save searches and citations using MyNCBI

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## What is your experience with Librarians?

- Who has a library/librarian at their workplace?
- Who has worked with a Librarian?
- How have you worked with a Librarian?




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## Shhhhhhhhhhhhhhhhhhhhhhh!




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## Librarians Can Help in Many Ways

- As a research collaborator
  - May have similar questions
  - Conduct a thorough lit search for you
    - May prefer to be an author or require payment

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## Librarians Can Help in Many Ways

- Provide support
  - Guidance/Training on:
    - How to search the literature
    - How to organize and manage citations
  - Introductions to others with similar interests
  - Navigate research process

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## Why you search the Literature?

- Because you have a question!
  - Clinical Question
  - Quality Improvement
  - Research Idea



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## For Any Search, You Need Focus

Research Oncology Topic Search Epidemiology Neoplasm Nursing RCT Physician  
 Cancer Hospital Diet Nutrition Adult Drugs Symptoms Clinic Meta-analysis RCT  
 Heart Disease Surgery Obese Woman Vegetarian Breast Cancer Science Diet  
 Outpatient Laboratory Trial Pathology Gluten Free Systematic Review Genetics  
 Question Therapy Nursing Search Vegetarian Laboratory Surgery Meta-analysis  
 Symptoms Oncology Female Hospital Research Elderly Seizure Search Patients  
 Epidemiology Neoplasm **FOCUSED QUESTION** RCT Diabetes Colon Cancer  
 Hospital Diet Nutrition Adult Drugs Symptoms Clinic Meta-analysis Review Diet  
 Science Heart Disease Clinic Research Question Therapy Nursing Search RCT  
 Physician Adult Epidemiology Science Symptoms Neoplasm Nursing Clinic Gluten  
 Free Systematic Review Vegetarian Laboratory Trial Pathology Physician Cancer  
 Systematic Review Genetics Pathology Gluten Free Systematic Review Genetics  
 Question Therapy Nursing Search Vegetarian Laboratory Surgery Meta-analysis  
 Symptoms Oncology Drugs Hospital Review Diet Science Heart Disease Diabetes

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## Focus by Weeding Out Irrelevant Details




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## Focus by Looking for the Concepts

- Try using **PICO**
  - **P**atient/Population
  - **I**ntervention
  - **C**omparison
  - **O**utcome


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## An Example

- You have a 76 year old female patient who has a history of arthritis and recently began to feel more tired than usual and has had unexplained weight loss. You worry about sarcopenia and wonder if adding a protein supplement to her diet would be beneficial.
- What are the main concepts or PICO?


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## An Example

- P**atient/Population
  - Elderly Female
- I**ntervention
  - Protein supplement
- C**omparison
  - Do nothing/Standard care
- O**utcome
  - Prevent sarcopenia
- Final Question:** In an elderly female patient will protein supplements help prevent sarcopenia.


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### An Example

- What was not included
  - Arthritis
  - Tired
  - Weight loss


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### Brainstorm Synonyms & Related Terms


- Elderly, Aged, Female, Woman
- Protein supplement, protein ingestion, dietary protein, dietary amino acids
- Sarcopenia, muscle loss

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## Searching in PubMed

- What is PubMed....
 



**PubMed**  
PubMed comprises more than 23 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full-text content from PubMed Central and publisher web sites.
- Free!
- Not Full Text
  - Includes: Title, Abstract, Journal Title, MeSH, etc.

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## PubMed is Not The Only Database

- Free
  - Cochrane – abstracts
  - TRIP database
  - TOXLINE
  - Google Scholar
- Subscription – ask your librarian
  - CINAHL
  - EMBASE
  - Natural Standard
  - Web of Science OR Scopus


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## What is Your Experience using PubMed?

- Who has searched PubMed
  - In the last week?
  - In the last month?
  - In the last 6 months?
  - Can't remember?
  - Never?




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## PubMed Search

- <http://pubmed.gov>

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## 5 Tips for Searching

1. Focus your question
  - Try using PICO
2. Brainstorm keywords and look for subject headings
3. Search each concept separately
4. Combine concepts using Boolean operators (AND, OR)
5. Use Filters to narrow/focus your search results
  - Options for age, gender, article type, etc.


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## Thank You!

Questions?

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## Research Savvy — Tips and Tricks to being "In the Know"

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Oncology Nutrition Symposium  
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 **Duke University**  
School of Medicine




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"OK, I'm now going to read out loud every single slide to you, word for word, until you all wish you'd just die."

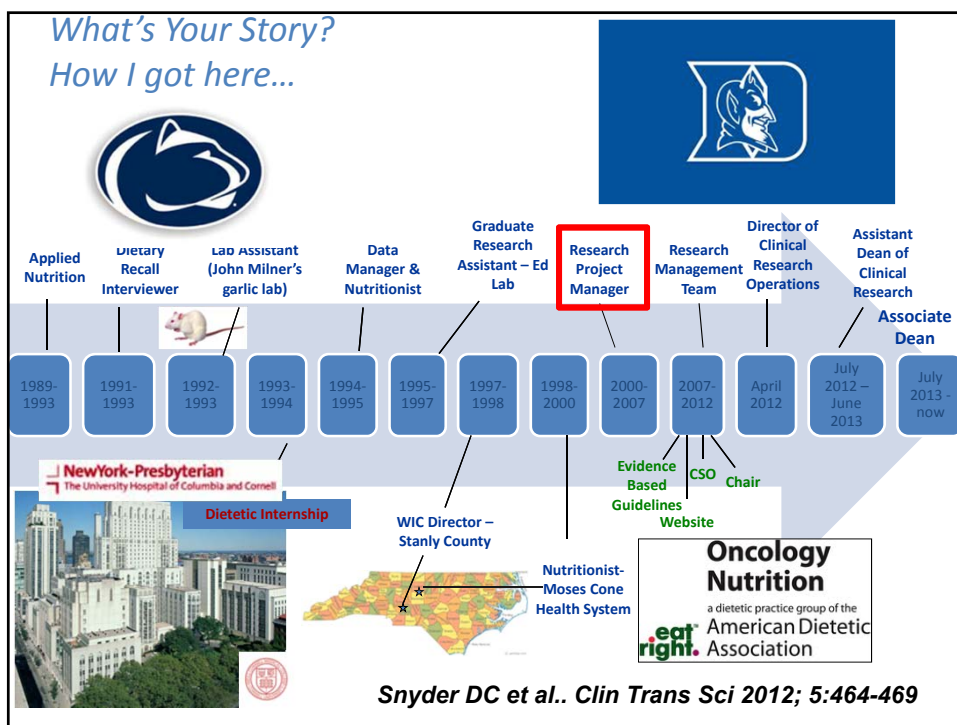
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## Learning Objectives

Participants will be able to:

- Assess an alternative career path and getting involved in research.
- State key items to consider when doing research.
- Verbalize potential resources available to researchers.



## Tested Home-Based Approaches

*Principal Investigator: Wendy Demark-Wahnefried, PhD, RD*






**STRENGTH (R21 CA92468)**  
90 Premenopausal Breast Cancer on  
Chemotherapy  
Feasibility & % Body Fat

**FRESH START (R01 CA81191)**  
543 Breast & Prostate Cancer  
Diet & Exercise Goals





**RENEW (R01 CA106919)**  
641 Elderly Long-Term Survivors  
Breast, Prostate & Colorectal Cancer  
Physical Function



**DAMES (R21 CA122143)**  
68 mother-daughter dyads  
BMI 25+; mothers within 5yrs breast ca dx  
Team vs. independent interventions






## Clinical Research is...

- Component of medical and health related research intended to produce knowledge to inform an understanding of human disease, preventing/treating illness, and promoting health
- Involves various study designs an interactions with volunteer human subjects, patients, clinical material or data, and populations



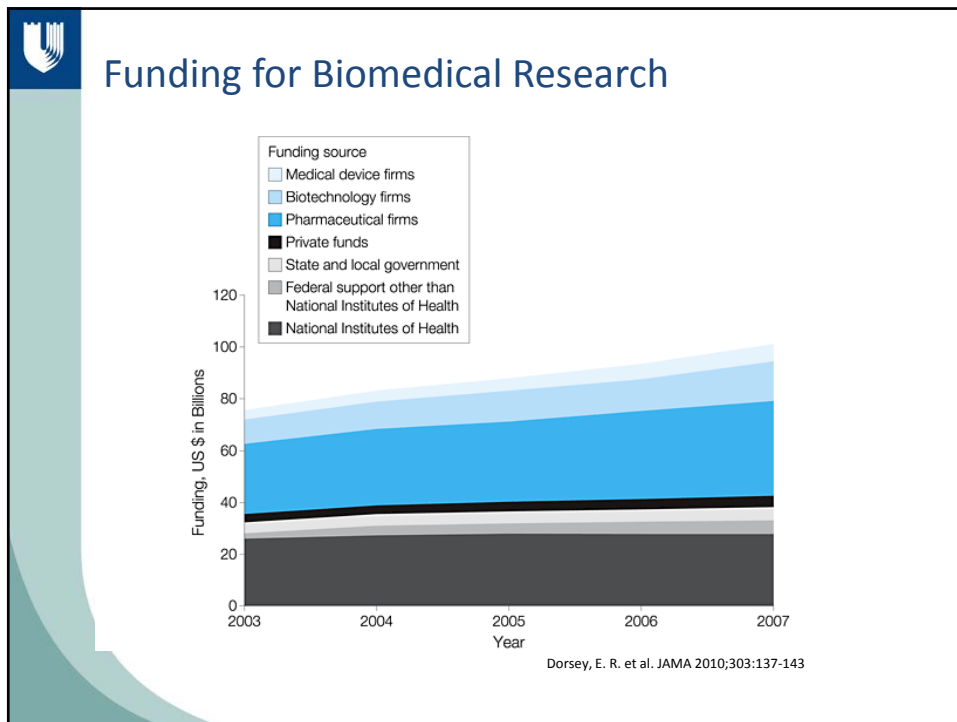
## Types of Research Activities

- Study design
- Securing funding
- Registering study (clinicaltrials.gov)
- Obtaining measures (e.g., lab)
- Interacting with subjects
  - Recruiting
  - Completing protocol specifications
  - Collecting data
  - Outcome assessment
- Data management
- Data analysis
- Disseminating results
- Reporting to sponsors/regulatory agencies
- Community Engagement—Policy Change



## Types of Clinical Research Organizations



- Academic Medical Centers
- Federal Agencies
  - National Institutes of Health (NIH)
  - Agency for Healthcare Research and Quality (AHRQ)
  - Other (e.g., VA, DOD)
- State Agencies (e.g., Dept of Health)
- Contract Research Organizations (CRO)
- Foundations
- Pharmaceutical/device company
- Community and practice networks



### Code of Federal Regulations (1991)

- Formed as a result of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research and Belmont Report
- The official United States “document”
- US DHHS, NIH, OHSR






## Defining Human Subject Research

Common Rule:

- Research: A systematic investigation...designed to develop or contribute to generalizable knowledge.
- Human Subject: A living individual about whom an investigator obtains data through intervention or interaction or obtains identifiable private information

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## IRB Responsibilities

- Review and approve, require modifications, or disapprove all covered research
- Require that informed consent is in accordance with regulations
- Require documentation of informed consent or may waive documentation in accordance with regulations
- Notify investigators in writing of decisions
- Conduct continuing review of research no less than once per year



## Quality Improvement

Quality improvement (QI) focuses on translating existing knowledge from research into clinical practice to improve the quality of health care for individuals and populations.

Research studies are intended to create new knowledge that can be generalizable; QI uses existing knowledge to improve health care outcomes within a local institution or setting.

January-February 2013/ HASTINGS CENTER REPORT



You've been asked to get involved in a research project on <insert topic> in your clinic with your favorite clinician.....what do you do?



### Talking points...you need more information before you can say YES!

- What is your role?
- Who else is on the research team?
- When will you work?
- How will your time be compensated?
- Is there a conflict of interest?
- Does your boss support? Do you need release time?
- What type of training will you need? (human subjects...)
- Be careful – clinical hat vs research hat
- Ask about authorship on publications

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### Budgeting Effort – Assume nothing!

- Is this part of your work time paid for by the hospital?
- Should you receive effort support from the research funding?
- If it is a pilot with no funding, if successful will you be budgeted into the external grant?



You are working in an outpatient clinic and have an idea for improving the nutrition care process...where do you start?



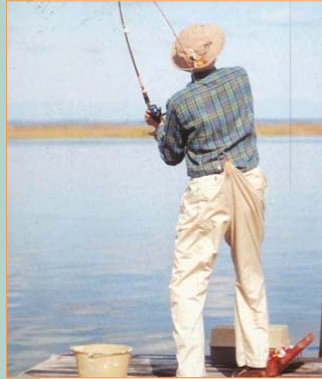
### Generate Idea – Your own

- Identify the problem & importance
- Review literature
- Tell the story – is it meaningful?
- Do you need to share the idea across departments or structures?
- Seek consultation – who can help





## Develop Proposal



- Find a mentor –develop relationships
- Determine research question
- Is it feasible? Do you have time?
- Support from colleagues
- Organizational feasibility
- Determine approvals needed



## Garner Support

- Mentor approval
- Administrative or committee approvals
- Assemble team (collaborators)
- Complete required research trainings
- Submit to Institutional Review Board (IRB)
- How can all this process help you?



## Collect Data

- IRB approval/exemption – study or QI may start
- Paper, electronic data capture, source documents, study files – be organized
- Data cleaning and checking (integrity)
- Data security
  - Type of data
  - Type of storage
  - Back up
  - Who has access



## Analyze Data

- Follow analysis plan
- Involve a statistician early (at design)
- Review analyses with mentors and collaborators





## Define Dissemination

Dissemination is the purposive distribution of information and intervention materials to a specific public health or clinical practice audience.

[http://www.nlm.nih.gov/hsrinfo/implementation\\_science.html](http://www.nlm.nih.gov/hsrinfo/implementation_science.html)



## Disseminate

- Presentations
- Posters
- Manuscripts
- Social Media
- Newsletters
- Book Chapters
- Blogs





## Authorship - Questionable Research Practices

- Who should be an author (Paul J. Friedman, UCSD, Council of Science Editors, 2004)
- What is the order of authorship
- Failure to recognize collaborators
- Good communication before and during the work

<http://www.councilscienceeditors.org/i4a/pages/index.cfm?pageid=3409>



## Should YOU do Research? Ask yourself -What's my motivation?

- Desire to answer a research question
- Be part of a research team
- Curiosity arising from a source of motivation
  - Observation
  - Literature
  - Academic necessity
- Intent to make a contribution





## A summary – for any career RD

- Try to be a good dietitian – be true to yourself and your patients
- Ask questions – seek advice
- Target what you want to do and stay with it
- Build relationships - establish connections with experts from a variety of backgrounds
- Remember to focus when you need to get it done
- It's not working – change directions
- There will be ups and downs – move forward!



## Thank you!



Duke University School of Medicine

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