NPPC
ASHP National Pharmacy Preceptors Conference

Building a Better Project Preceptor Through Implementation of a Systematic Program for Improving Pharmacy Resident Projects

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Disclosures

- Vishnuprabha Dhanapal: Nothing to disclose
- Susan Davis has received research grant support and/or consulting fees from Cubist, Durata, Forest, Melinta, Pfizer and Premier
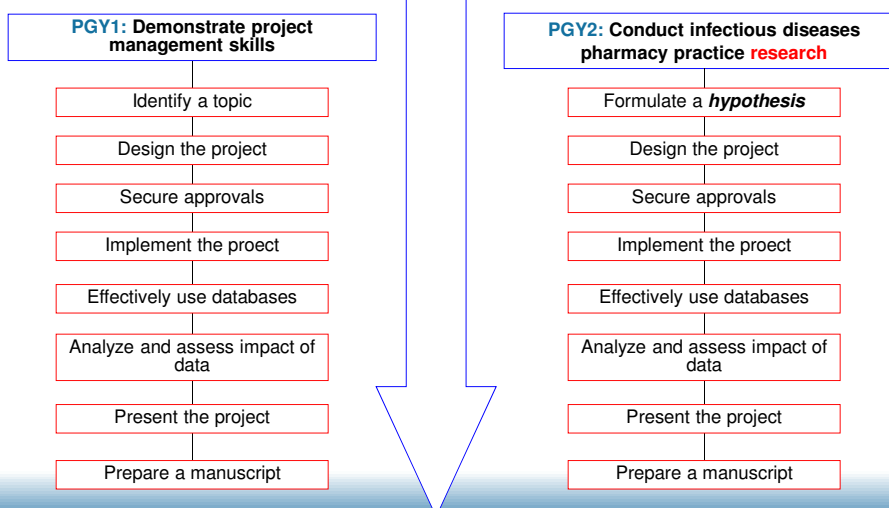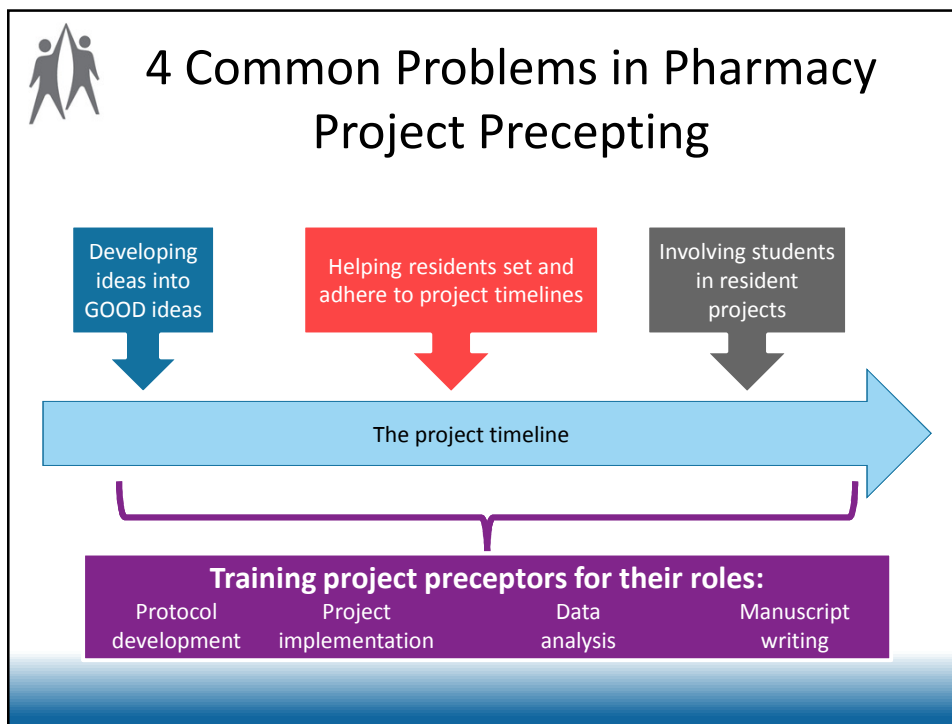- James Kalus: Nothing to disclose

Learning Objectives

1. Evaluate resident project ideas for appropriateness and feasibility
2. Implement a layered learning model in the conduct of resident research projects to include students, PGY1 and PGY2 residents, staff pharmacists, and both new and experienced preceptors
3. Design a professional development program that improves research skills of new and existing preceptors and staff pharmacists through participation in pharmacy resident projects

Project Management & Research

PGY1: Demonstrate project management skills	**PGY2: Conduct infectious diseases pharmacy practice research**
Identify a topic	Formulate a *hypothesis*
Design the project	Design the project
Secure approvals	Secure approvals
Implement the proect	Implement the proect
Effectively use databases	Effectively use databases
Analyze and assess impact of data	Analyze and assess impact of data
Present the project	Present the project
Prepare a manuscript	Prepare a manuscript

4 Common Problems in Pharmacy Project Precepting

| Developing ideas into GOOD ideas | Helping residents set and adhere to project timelines | Involving students in resident projects |

The project timeline

Training project preceptors for their roles:

| Protocol development | Project implementation | Data analysis | Manuscript writing |

How do you assign resident projects?

A. Residents come up with their own, preceptors approve and refine

B. Residents pick among pre-determined options

C. Residents pick a preceptor then work on an idea

D. Residents do whatever project we tell them

E. Wait, we can use a systematic process to assign projects?

The FINER points of project ideas

Use the FINER criteria to help turn general ideas into research ideas.

- **F**easible

- **I**nteresting

- **N**ovel

- **E**thical

- **R**elevant

http://www.ashpfoundation.org/MainMenuCategories/ResearchResourceCenter/ResearchResources/SpecificAims.aspx

Feasible

- Adequate number of subjects
- Appropriate technical expertise available
- Affordable in TIME and money
- Manageable in scope

Interesting

- Is it interesting internally?
  - To the resident, preceptor, department
- Is it interesting externally?
  - Pharmacy practice, organizations, literature

Hulley SB CS. Conceiving the research question. In: Hulley SB CS, Browner WS, Grady D, Hearst N, Newman TB, ed. Designing Clinical Research. 2 ed. Baltimore: Williams & Wilkins; 2001:17-24.

Novel

- Do a thorough literature search
- Don't waste time on something that has been done already

- When to repeat someone else's project
  - If publication is not a goal
  - If implementation of a published intervention is important to the institution

Hulley SB CS. Conceiving the research question. In: Hulley SB CS, Browner WS, Grady D, Hearst N, Newman TB, ed. Designing Clinical Research. 2 ed. Baltimore: Williams & Wilkins; 2001:17-24.

Ethical

- Human subjects research protection must be considered in all protocols
- Even in retrospective studies loss of privacy is still considered a risk
- Many prospective studies will require informed consent
- Know your IRB

Hulley SB CS. Conceiving the research question. In: Hulley SB CS, Browner WS, Grady D, Hearst N, Newman TB, ed. Designing Clinical Research. 2 ed. Baltimore: Williams & Wilkins; 2001:17-24.

Relevant

- What will the resulting data lead to?

- This can contribute to
  - Expanded scientific knowledge
  - Improved institutional quality of care
  - Future research directions

Hulley SB CS. Conceiving the research question. In: Hulley SB CS, Browner WS, Grady D, Hearst N, Newman TB, ed. Designing Clinical Research. 2 ed. Baltimore: Williams & Wilkins; 2001:17-24.

Activity: Prioritize!

Do: on your workmat, rank the proposed project ideas according to the FINER criteria.

Discuss: What needs to be done to make this a good project idea? How do you give feedback to preceptors at your institution to improve the quality of project ideas?

Running Out of Time

PGY-1 resident, Mike, selected a project with you as his residency project two months ago. The IRB application is due in two weeks. Although as a student, he assisted in data collection, he has not had the opportunity to function as primary investigator. Mike is unsure how to begin writing his protocol.

Activity: Organize!

Do: On your workmat, sketch a tentative outline of project milestones for the project your group has chosen to work on.

Discuss: strategies you've used to help residents maintain project timelines. What do you do when they miss a deadline? How do you help new project preceptors with this process?

So Many Minions

At your institution, you have a number of students who would like exposure to project management. But experience tells you that they are rarely able to complete a project in the time they are with you.

Is there a way some of these students can help with resident projects?

Activity: Recruit!

Do: Design a training plan (roles, learning objectives) for a P4 student to be involved in the resident project your group has selected.

Discuss: Are there downsides to having students involved in resident projects? How can student involvement enhance resident learning?

I need more project preceptors

Your residency program has undergone significant expansion. Your "go to" project preceptors are overwhelmed by the number of projects. At the same time, several new preceptors with limited project/research experience express interest in precepting a resident project this year. How do you expand the project preceptor pool, while maintaining project quality?
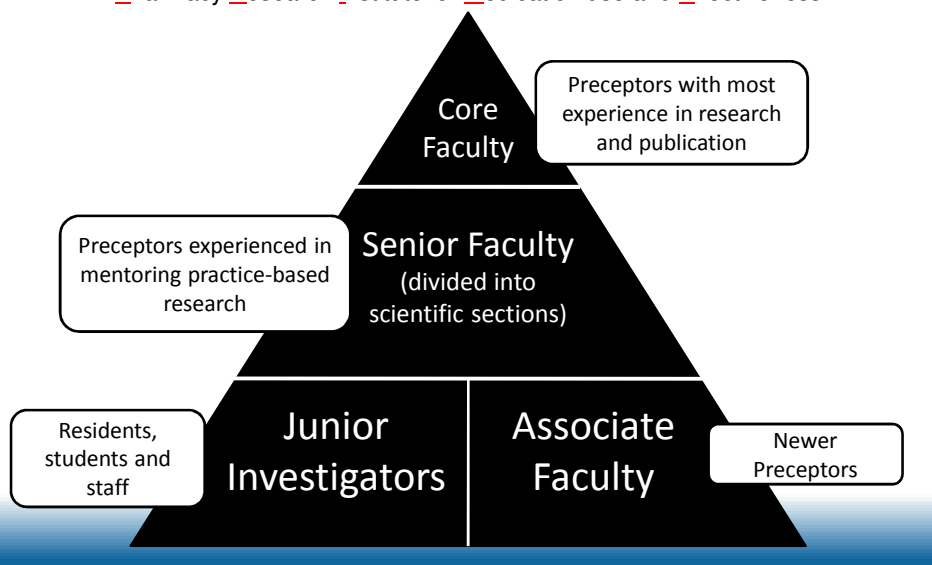
Activity: Expand!

Do: Refer back to the project milestones you outlined previously. Identify the most appropriate preceptor roles at each stage). What competencies should preceptors have to be effective in their roles?
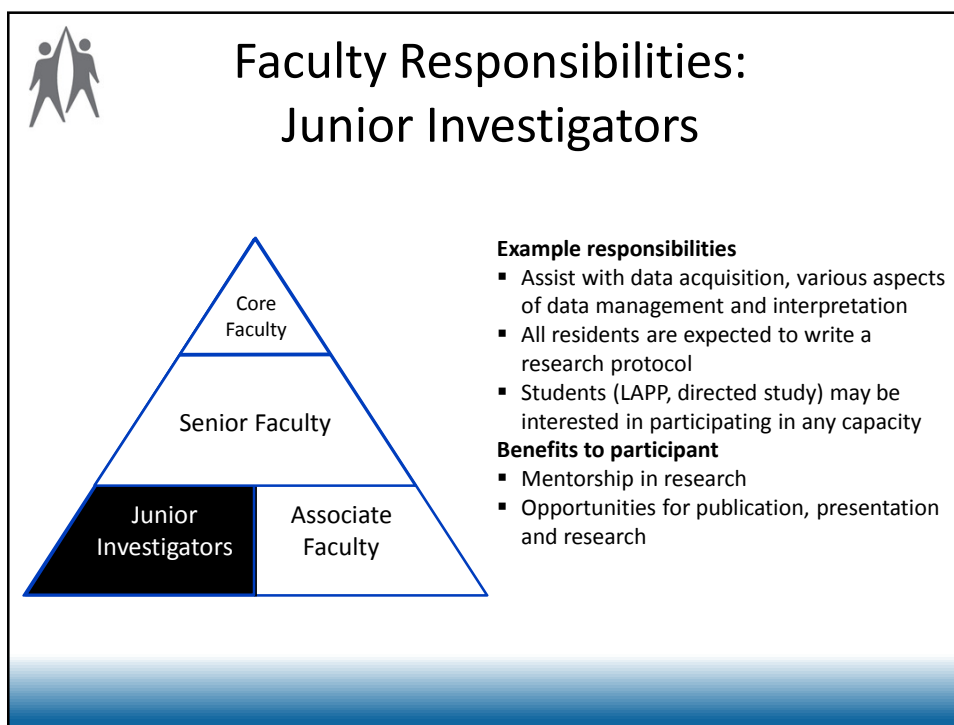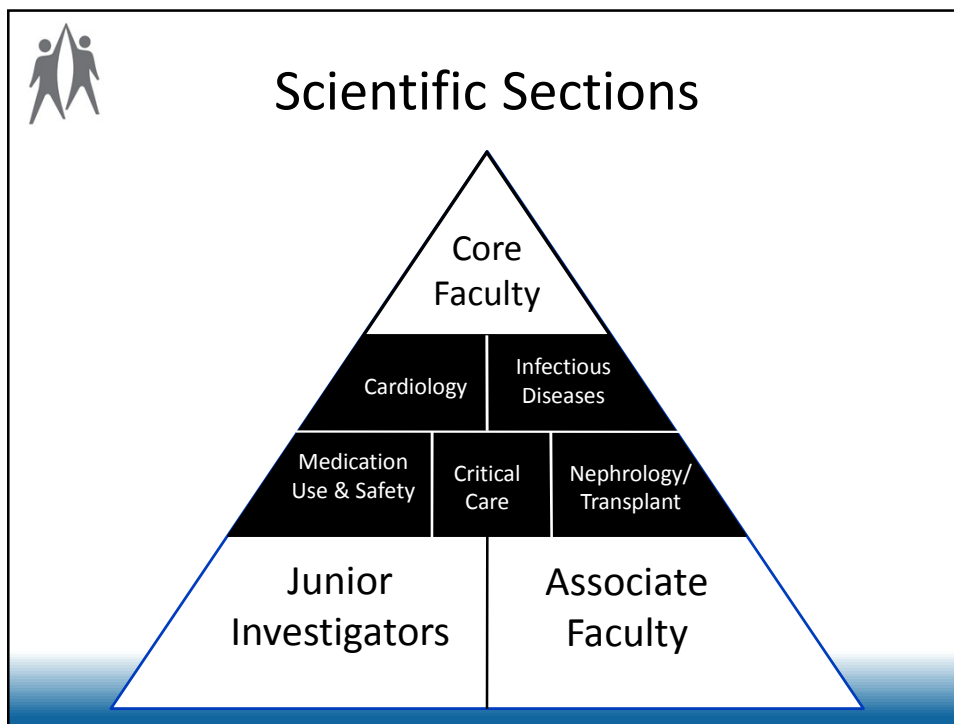
Discuss: How do you recruit new preceptors for projects? Do you have training in place for preceptors who have a lot of enthusiasm but little project/research experience?
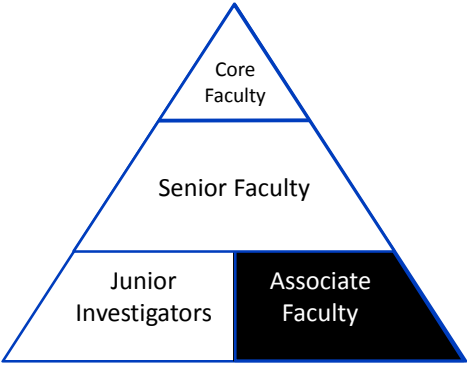
PRIME: The HFH model

Pharmacy Research Institute for Medication use and Effectiveness

Core Faculty

Preceptors with most experience in research and publication

Preceptors experienced in mentoring practice-based research

Senior Faculty (divided into scientific sections)

Junior Investigators

Associate Faculty

Residents, students and staff

Newer Preceptors

Scientific Sections

Faculty Responsibilities: Junior Investigators

Example responsibilities
- Assist with data acquisition, various aspects of data management and interpretation
- All residents are expected to write a research protocol
- Students (LAPP, directed study) may be interested in participating in any capacity

Benefits to participant
- Mentorship in research
- Opportunities for publication, presentation and research

Faculty Responsibilities: Associate Faculty

Core Faculty

Senior Faculty

Junior Investigators | Associate Faculty

Faculty with an <u>interest in research/project management</u>, but insufficient experience or training in research methods/project management
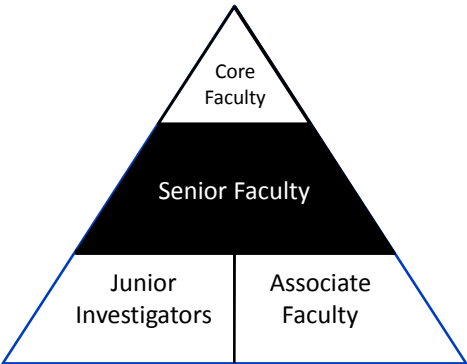
Example responsibilities
- Participate in at least 1 project per year
- Mentor junior investigators
- Write protocols (self or resident)
- Recruit co-investigators for projects

Benefits to participant
- **Mentorship in research from Senior/Core faculty**
- Opportunities for publication, presentation and research
- **Experience mentoring junior investigators**
- **Participate in a "curriculum" related to research and project management skills**
- Forum for developing/refining study ideas

Faculty Responsibilities: Senior Faculty

Core Faculty

Senior Faculty

Junior Investigators | Associate Faculty

Faculty with a high degree of interest in scholarship and experience in mentoring pharmacy research
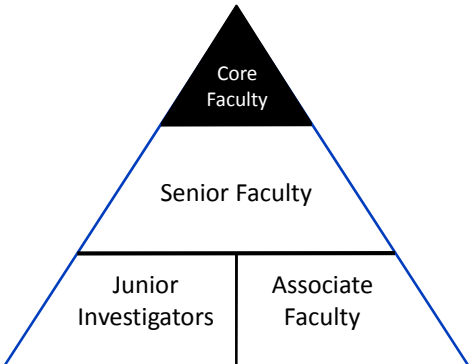
Example responsibilities
- Lead a scientific section
- **Provide a "curriculum" related to research and project management skill development**
- Review and provide feedback on protocols/papers suggested by associate faculty

Benefits to participant
- **Mentorship from core faculty on advanced skills**
- Experience mentoring junior investigators
- Scholarly effort of junior investigators
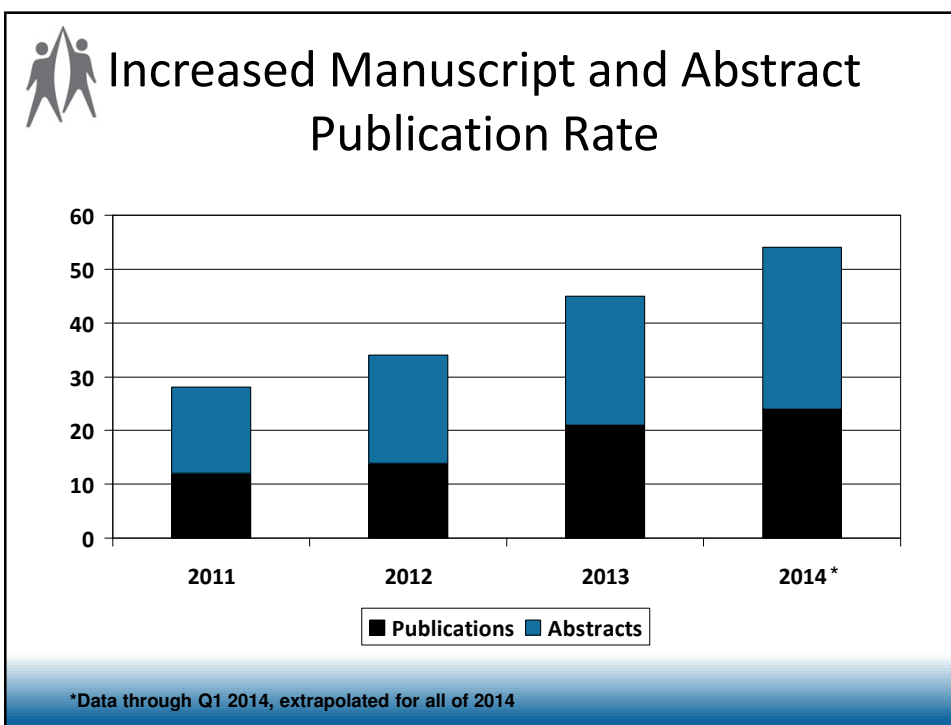   - Increased scholarly output
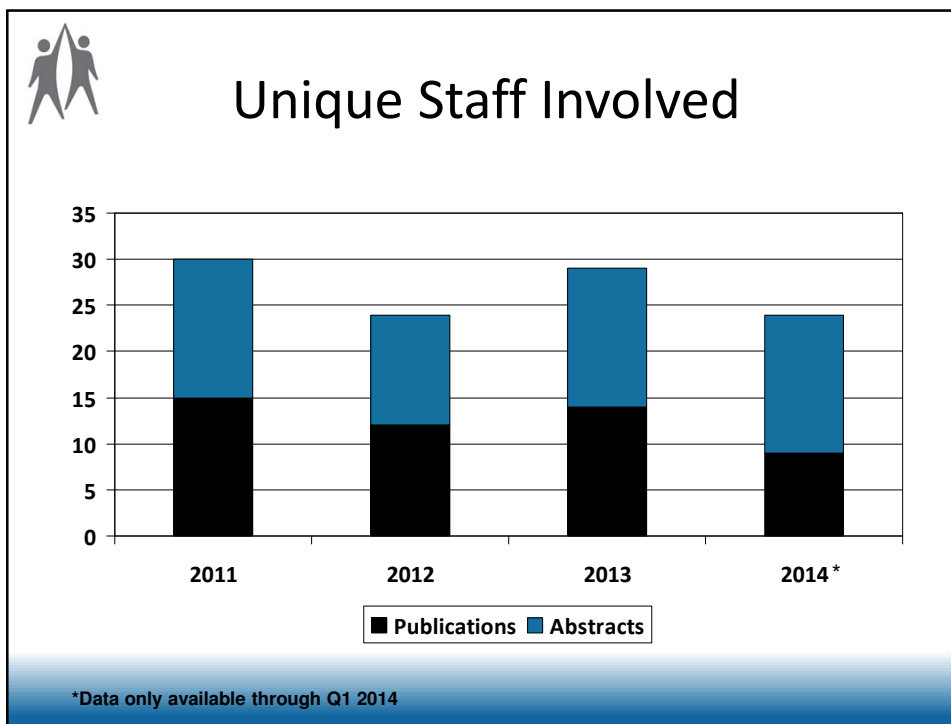
Faculty Responsibilities: Core Faculty

Faculty with extensive experience and training in research methods and publication record

```
        Core
       Faculty

     Senior Faculty

  Junior    | Associate
Investigators| Faculty
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Example responsibilities
- Advise on and evaluate PRIME's general scientific agenda
- **Coordinate research training of new pharmacy preceptors**
- **Provide a "curriculum" related to research and project management skill development**
- Develop new initiatives and proposals for funding from agencies, foundations and corporations
- **Mentor others in research and project management**
- Facilitate interdisciplinary research projects
- **Refine project ideas**

Increased Manuscript and Abstract Publication Rate

*Data through Q1 2014, extrapolated for all of 2014

Unique Staff Involved

*Data only available through Q1 2014

Conclusion

- Higher quality projects with FINER criteria
- Staying on track: various strategies
- Layered learning models
  - Applied to research and project management
- Expanding project preceptor capacity
  - Key skill development
  - Mentorship