



## **GME Lunch and Learn**

### **An Internal Medicine Scholarly Activity Initiative: Facilitate Housestaff Involvement in Scholarly Activities**

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## **Objectives**



- Provide programs with resources to facilitate resident mentorship in scholarly activity
- Outline small group workshops that have been used to promote research skills and facilitate scholarly activity
- Demonstrate use of novel web-based resource to track housestaff productivity

## Background

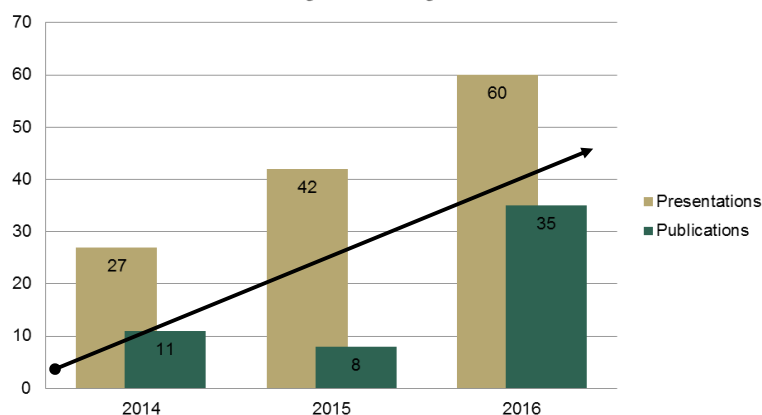


- Since 2014, improving opportunities for scholarly activity has been a program goal
- Interventions: resources for residents (such as conference travel funding), providing workshops (voluntary) that focused on research skills or mentorship, widespread notification of conference abstract deadlines (monthly emailed newsletter, calendar in conference room)
- We saw a rise in publications and conference presentations

## Background



Scholarly Activity 2014-2016

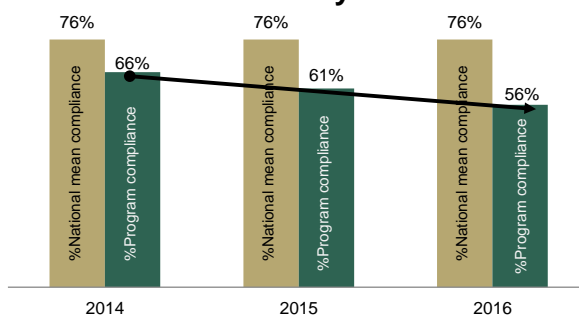


## Background



- Despite that progress, we continued to see declining satisfaction with opportunities for scholarly activity on the annual ACGME survey

**ACGME Survey Results**



## Our Initiative



- “The Scholars Council” curriculum was started for the 2016-2017 academic year
- Goals:
  - Reach ALL residents and interns
  - Compile resources
  - Teach basic research skills
  - Residents to report their progress on scholarly projects

## Reaching all residents



- Senior residents are on X + Y schedule (6 weeks + 2 weeks)
- The scholars council curriculum was delivered 2-3 x per year for each of the 4 clinic cohorts (1-2 hours of the afternoon)

July	August	September	October	November	December	January	February	March	April	May	June
X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
Y	X	Y	X	Y	X	Y	X	Y	X	Y	X
X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
X	Y	X	Y	X	Y	X	Y	X	Y	X	Y

- Interns are on a traditional schedule. They are scheduled for a mandatory session during their intern retreat in August, voluntary workshop in Spring



## Resources to Facilitate Scholarly Activity

## Resources to Facilitate Scholarly Activity



- Instructional
  - “How-To” articles provided as PDFs
  - Powerpoints and tutorials from previous workshops
- Example documents from other residents
  - Databases
  - IRB proposals
  - Manuscripts/Abstracts
- USF wide resources
  - IMPACT
  - GME statistician
  - RedCap institutional access instructions
  - IRB links to templates and guides



## Using Workshops to Teach Skills



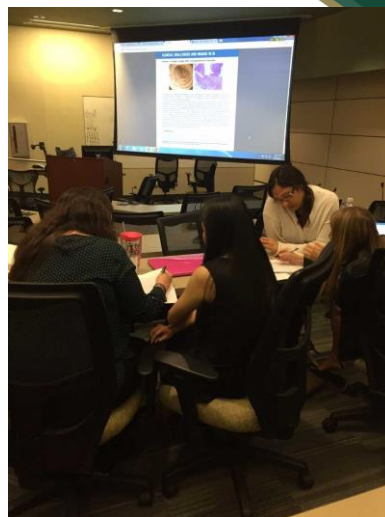
## Teaching research skills in small groups

- Critical Review of a Case Report Manuscript Workshop (Seniors)
- Conference Abstract Review Workshop (Interns)
- Letter to the Editor Workshop
- Senior Resident Forum Discussion – Performing Longitudinal Research

## Case Report Manuscript Workshop



- Senior residents are assigned into 4 small groups of 3-4
- They receive a checklist and a manuscript one of their colleagues volunteered to be reviewed
- They have 45 minutes to review the manuscript based on their checklist
- Each group then presents their recommendations to the author for each of the four checklists used



### Manuscript Review Checklist

#### Group 1: Use example articles from the journal to review the manuscript

1. Is this journal appropriate for the paper/topic? \_\_\_\_\_
2. Has the same topic been recently published in the journal? \_\_\_\_\_
3. What is the format of case report in this journal? (short clinical image, longer report, letter format, other) \_\_\_\_\_
4. Look at several case reports from the journal to answer the following questions:
  - a. Recommendations for title: descriptive/revealing v. cute/hidden \_\_\_\_\_
  - b. General layout:
    - i. Length: does the manuscript need to be shorter, longer, or is appropriate \_\_\_\_\_
    - ii. Is there an abstract? \_\_\_\_\_
    - iii. Is there an introduction before the case presentation? \_\_\_\_\_
    - iv. Do the section headings on the manuscript match the journal (Example: Introduction, Case Presentation, Discussion, and Conclusion)? \_\_\_\_\_
  - c. Images/Figures/Tables
    - i. Check the legend style – is it present, short or more descriptive? \_\_\_\_\_
    - ii. How are figures referred to in the text? (Fig. A) or (Figure 1) or \_\_\_\_\_
  - d. References:
    - i. How are the cited in the manuscript [1]? \_\_\_\_\_
    - ii. Are the references in alphabetical order or order in which appear in the paper \_\_\_\_\_
  - e. Other considerations:
    - i. Units of measures match (example: temperature in F or C) \_\_\_\_\_

Other suggestions after review: \_\_\_\_\_

#### Group 2: Read the manuscript, and then perform a literature search to highlight the importance of the topic

1. After reading the manuscript what is the selling point/what is unique? \_\_\_\_\_  
 \_\_\_\_\_
2. Review the literature on the topic
  - a. Review the references of the manuscript, are they up-to-date, or is there more recent available literature? Are they misquoted? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
  - b. Review the literature for other references or selling points for the paper (provide references in the form of PubMed ID (PMID) number: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

#### Group 3: Review the manuscript's compliance with the journals' author guidelines

1. Required elements:
  - a. Formatting (double space, file format, etc.) \_\_\_\_\_
  - b. Title page (typically includes)
    - i. Title & authors (make sure to include middle initial) \_\_\_\_\_
    - ii. Corresponding author designated, contact info for corresponding author \_\_\_\_\_
    - iii. Conflict of interest statement \_\_\_\_\_
    - iv. Funding statement \_\_\_\_\_
    - v. Keywords or phrases \_\_\_\_\_
    - vi. Any other requirements requested of title page \_\_\_\_\_
  - c. Abstract (length & if required) \_\_\_\_\_
  - d. Body follows recommended formatting (subheadings, etc.) \_\_\_\_\_
  - e. References:
    - i. Review how citations occur in paper (superscript, brackets, other) \_\_\_\_\_
    - ii. Are they ordered alphabetical or by appearance in text \_\_\_\_\_
    - iii. Review compliance of formatting of the references (# authors listed before et al, italicization, punctuation, etc.) \_\_\_\_\_
  - f. Image requirements
    - i. Location in file versus uploaded separate \_\_\_\_\_
2. Review limits: word count, author limit, reference limit, figure limits \_\_\_\_\_
3. Supporting documents:
  - a. Cover letter requirements: \_\_\_\_\_
  - b. Informed consent from patients (global or if identifiable) \_\_\_\_\_
  - c. Disclosure forms \_\_\_\_\_
  - d. Other documentation \_\_\_\_\_
4. Other requirements: \_\_\_\_\_  
 \_\_\_\_\_

#### Group 4: Review the content of the manuscript for clarity, grammar, formatting, style

1. Does the title clearly describe the manuscript? If no, what title is suggested? \_\_\_\_\_
2. Is the abstract (if required) a good representation of the paper (could "stand alone", is consistent with the paper, is concise and includes a conclusion)? If no, what is suggested? \_\_\_\_\_
3. Review the manuscript for appropriate use of abbreviations \_\_\_\_\_
4. Review the manuscript for grammar/spelling mistakes
  - a. Avoid empty phrases (ex. "as a consequence of" or "owing to the fact that" when could just say "because") \_\_\_\_\_
  - b. Appropriate use of colon, semicolon, etc. \_\_\_\_\_
  - c. Avoid the use of confusing complex sentences \_\_\_\_\_
5. Review the figures, pictures, tables – are they clear, self-explanatory, labeled \_\_\_\_\_
6. Review references – are all references listed cited at some point in the paper, and vice versa \_\_\_\_\_

## Conference Abstract Workshop

- Interns are placed in small groups of 2-3
- They are provided an abstract that a colleague has volunteered to be reviewed and a checklist of tasks to complete during the review
- Since abstracts are shorter, all groups complete all sections of the checklist
- 30 minutes later, each group presents their recommendations to improve the abstract



## Conference Abstract - Review Checklist

## Section 1: Review the conference website for abstract requirements to answer the following:

- Review Formatting Requirements for specific conference:
  - ☐ Word count: \_\_\_\_\_
  - ☐ Headings to adhere to: \_\_\_\_\_
  - ☐ Are figures or table able to be submitted? \_\_\_\_\_
  - ☐ Other specific formatting requirements: \_\_\_\_\_

## Section 2: If available, review published abstracts the conference the year prior to answer the following:

- Is this abstract in line and appropriate for submission to this conference? \_\_\_\_\_
- Are titles typically: descriptive/revealing versus cute/hidden
  - ☐ Recommendations for title: \_\_\_\_\_
- General layout:
  - ☐ Length: does the abstract needs to be shorter, longer, or is appropriate \_\_\_\_\_
  - ☐ Is there an introduction before the case presentation? \_\_\_\_\_
  - ☐ Typical section headings (introduction, case description, conclusion, discussion, etc.) \_\_\_\_\_
  - ☐ If figures are allowed, how are they referred to in the abstract? (Fig. A) or (Figure 1) \_\_\_\_\_
  - ☐ Are references cited in the abstract, if so how? [1].<sup>1</sup> \_\_\_\_\_
- Other suggestions: \_\_\_\_\_

## Section 3: Read the abstract for content, then answer the following questions:

- After reading the abstract why is this clinical case or research unique? Does the introduction highlight why the case/research is important? \_\_\_\_\_
- Review the literature on the topic, to answer the following questions:
  - ☐ Is the literature in the discussion relevant, up-to-date? Is there more recent information available? \_\_\_\_\_
  - ☐ Does the discussion/conclusion highlight the correct take home points from the case/research? \_\_\_\_\_
- If you need to reduce the length/word count, what would you remove? \_\_\_\_\_

## Section 4: Review the abstract again for clarity, grammar, formatting, style

- Does the title clearly describe the abstract? Other titles to consider? \_\_\_\_\_
- Author list
  - ☐ Includes middle initial of each author \_\_\_\_\_
  - ☐ Includes appropriate institutional affiliations \_\_\_\_\_
  - ☐ Other conference specific requirements: \_\_\_\_\_
- Review general formatting:
  - ☐ Are there abbreviations that should be spelled out? \_\_\_\_\_
  - ☐ Do lab values and vital signs have units of measure or reference ranges if needed? \_\_\_\_\_
- Review the manuscript for grammar/spelling mistakes:
  - ☐ Avoid empty phrases (ex. "as a consequence of" or "owing to the fact that" when could just say "because") \_\_\_\_\_
  - ☐ Appropriate use of colon, semicolon, etc. \_\_\_\_\_
  - ☐ Avoid the use of confusing complex sentences \_\_\_\_\_
- Review for organization:
  - ☐ Introduction (if applicable): is it concise and focused on introducing the importance of the topic? \_\_\_\_\_
  - ☐ Case description should read like an H&P (Symptoms, pertinent PMH/SurgHx/Meds/Social/FH, physical exam, labs, imaging, management, diagnosis, outcomes) – What recommendations do you have for organization? \_\_\_\_\_
  - ☐ Research abstract follows appropriate headings (Background, Methods, Results, Conclusions, etc.) \_\_\_\_\_
- Review the figures, pictures, tables (if applicable) – are they clear, self-explanatory, labeled? \_\_\_\_\_
- Review references (if applicable) – are all references listed cited at some point in the paper, and vice versa? \_\_\_\_\_

## Letter to the Editor Workshop



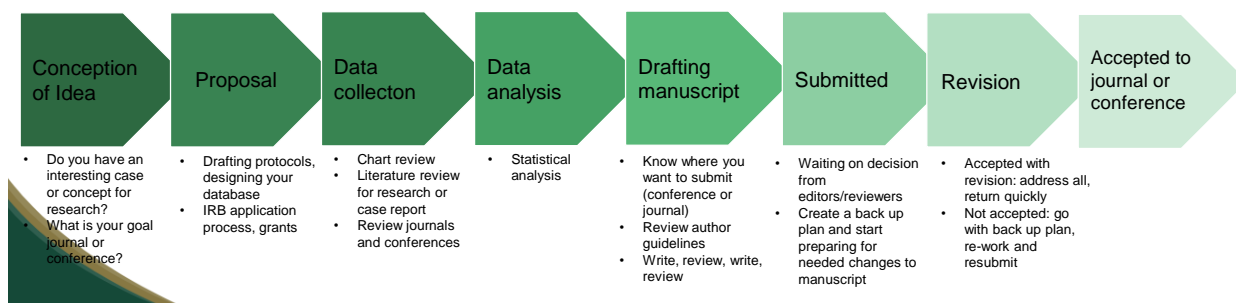
- Workshop occurs twice per year
- Group is split into 5 small groups of 2-4 residents with similar career interests (as best possible)
- Groups are assigned an article from a journal to read prior to the workshop
- During the workshop, they beginning writing a Letter to the Editor (1 hour)
- At the end of the workshop they read aloud their progress and submit to journal within one week
- Workshop resulted in 5 publications in Spring 2017



## Have Residents Report on their Progress

## Resident Project List

- For the Academic Year 2016-2017 – residents reported their information in table format which was compiled into a Master Excel document
- 2-3 times per year they reported each project, the coauthors, their goal for the project (what journal or conference) and where the project was along the following productivity pipeline



# Project List Example 2016-2017



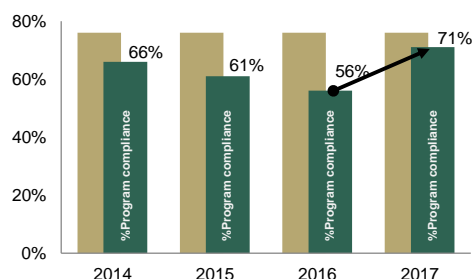
Resident	PGY Level	Clinic Group	Career Goals	Action Project Title	Authors	Planned conference/Journal	Productivity Pipeline Sept-Oct 2016	Productivity Pipeline Jan-Feb
4				Difficult LV Lead Placement - Case Report		Journal of Cardiac Electrophysiology	Drafting - editing	Submitted, accepted, resubmitting
5				ORA for endoscopy		GI, cardiology meeting, publication	Chart review	and figure accepted, present in April 2017, abstract to be published in Circulation, cardiovascular quality and outcomes symposium in March 2017
6				Cost volume improvement		ACME - brief report	Writing	Drafting
7				Capstar Anaphylaxis		ACME	Draft journal	Accepted 10/16
8				WBC & renal mass		Emerging case report	Drafting	Accepted 10/16
9				ICU Hemodynamics		J Journal	Drafting	Accepted 10/16
10				Pericardial effusion, ECG		Emerging Sci. JOM	Drafting	
11				Case for Anaphylaxis		ACME		
12				Cardiac Cath		Image journal	Conception	
13				Short-term renal outcomes in dialysis patients		Journal of Renal Medicine	Accepted poster presentation 10/2016	
14				Metformin and renal outcomes over 1 year		ACME	Proposal 10/16	
15				Autoimmune hemolytic anemia as a complication of dual immunosuppression		Case reports in oncology	Drafting	
16				Neutropenic fever in T19 regimen		ACME	Accepted 10/16	
17				Pain not just a symptom		ACME research symposium	Submitted	Accepted and presented at ACME 10/16
18				Using cancer as something else		Southern Hospital Medicine	Accepted poster presentation 10/2016	
19				Case formation in the pathophysiology of multiple myeloma		Southern Hospital Medicine	Accepted poster presentation 10/2016	
20				Case formation in the pathophysiology of multiple myeloma		ACME case reports	Submitted	Accepted in cancer control
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## Our Progress



- Academic Year 2017-2017 Scholarly Activity:
- Publications:
  - 36 Peer-reviewed publications
  - Additional 15 Publications, accepted and in press
- Conferences:
  - 95 Conference presentations
  - Resulting in 73 Abstract Publications
- ACGME survey results
  - Improved 15% in one year

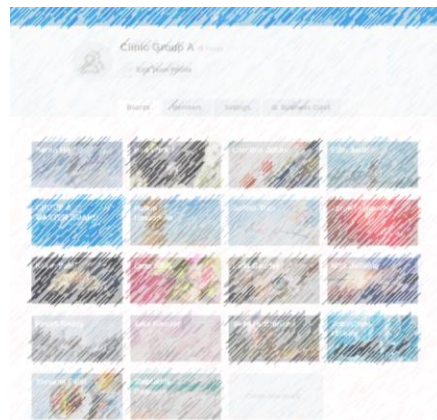
### ACGME Survey Results



## Future Growth



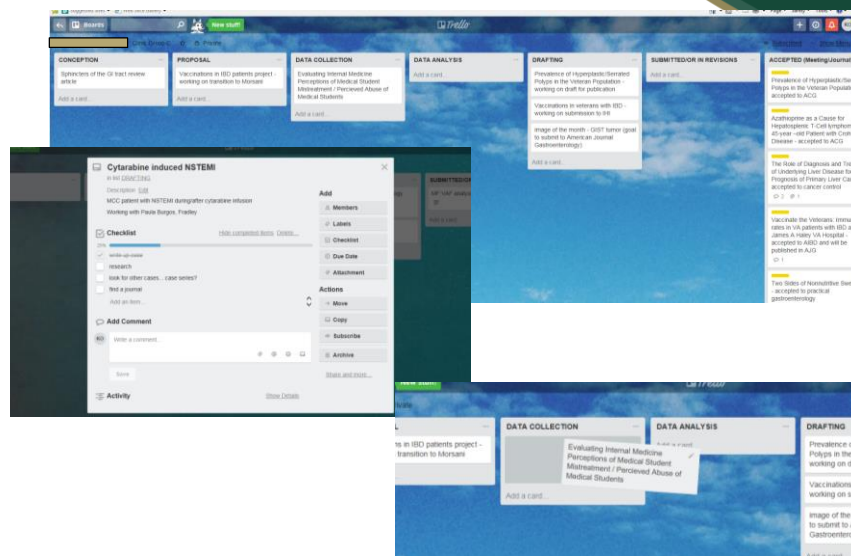
- For the Academic Year 2017-2018 – we went to a web-based program to track resident projects - Trello
- Resident groups were created (based on X + Y cohorts)
  - Each resident has a private board in the group
  - Assigned administrators can see resident boards, residents see only their board



## Trello



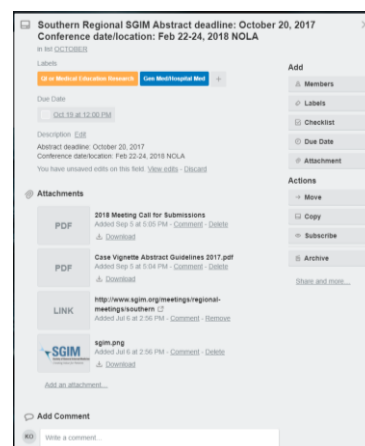
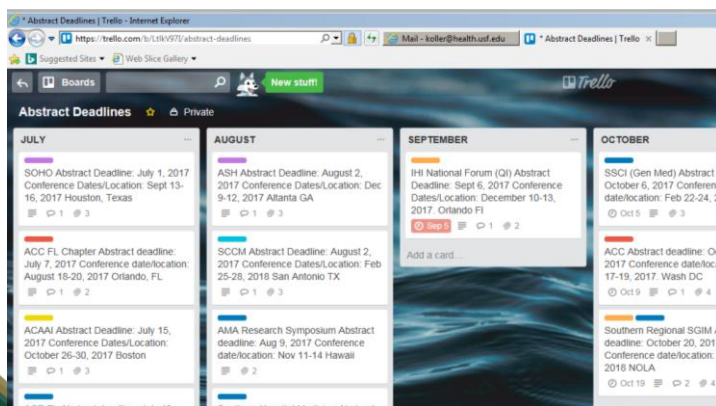
- Residents boards are prepopulated with the columns that correlate to the productivity pipeline
- They add their projects as cards
- Within the cards – they put goals for project, authors. They can add checklists, due dates, chat with administrators of board
- Cards are mobile, drag across columns



## Interactive Conference Calendar



- A shared board was created – all residents have access



## Summary



- Find a time where you can reach all your housestaff
- Provide resources such as templates and examples
- Use small groups workshops to integrate basic research skills into the curriculum
- Track housestaff projects on an individual level to provide mentorship, encourage follow through, and increase accuracy of your programs metrics