

University of South Florida

Research – PGY 2

Goals & Objectives

Scholarly Activity:

1. The scholarship of *discovery*, as evidenced by peer-reviewed funding or by publication of original research in a peer-reviewed journal;
2. The scholarship of *dissemination*, as evidenced by review articles or chapters in textbooks;
3. The scholarship of *application*, as evidenced by the publication or presentation of, for example, case reports or clinical series at local, regional, or national professional and scientific society meetings.
4. Complementary to the above scholarship is the regular participation of the teaching staff in clinical discussions, rounds, journal clubs, and research conferences in a manner that promotes a spirit of inquiry and scholarship (e.g., the offering of guidance and technical support for fellows involved in research such as research design and statistical analysis); and the provision of support for fellows' participation, as appropriate, in scholarly activities.

The goals of the research rotation are twofold: To prepare the resident to critically evaluate and employ published research and to make novel contributions to the body of orthopaedic knowledge.

Residents do not have any clinical responsibilities during the rotation and can give undivided attention to participation and learning of the critical elements of the research rotation. Residents will work with a faculty mentor who will oversee critical components of their research project, as well as discuss topics required for understanding biostatistics and research methodology. A detailed schedule of daily activities will be constructed by the resident and mentor prior to the beginning of the rotation to guide the resident through the steps to completion of their project.

Requirements:

1. All residents are required to participate and complete at least one published manuscript during their training period under guidance of a faculty mentor.
2. Participate in periodic research-in-progress seminars (opportunity to discuss research projects among the residents).
3. Start or join a research project/IRB.
4. Complete Citi Training.

Objectives of this rotation include:

1. Residents develop an original research idea, follow all the steps in scientific research, statistical analysis and see the project to completion as a published manuscript or a presentation in a national level conference.
2. Understand search strategies while utilizing online literature databases.
3. Ascertain limitations in their critical appraisal of literature and means to address those deficiencies.
4. Understand limitations and advantages of original peer-reviewed medical literature.
5. Discuss and understand sensitivity, specificity and predictive values of diagnostic tests, how they are used, and how tests are selected and interpreted; understand the impact of prevalence of disease on the predictive values (and the interpretation) of a diagnostic test.
6. Understand the meaning of statistical significance and differentiate it from clinical significance; learn to evaluate observational study designs such as a cross-sectional, case-control and cohort studies.
7. Discuss bias and confounding.
8. Understand the structure of randomized control trial, its strengths and weaknesses.
9. Compile evidence-based review of a specific clinical question using critical appraisal skills.
10. Understand how to design a protocol for an original research project utilizing fundamental statistical principles and research methodology.
11. Present results of the research activities conducted in an appropriate forum, i.e. grand rounds.