Fourth Year Research Elective

For residents interested in pursuing academic careers, a 4th-year elective is offered in which non-clinical time is allotted for the completion of a primary research project. The time allocated may be up to 3 months dependant on the project, other planned electives, current academic performance and other clinical requirements. Time allocated will be at the discretion of the Program Director, who will consult with the Resident Research Committee and the resident's research mentor.

Prerequisites

1. Good academic standing as determined by Program Director and CCC committee
2. Identify a research project and faculty mentor at least 4 months prior to the start of the first elective period. See notes re IRB below.
3. Complete CITI training before project start

Learning Objectives

These learning objectives will depend on the scope of the project, the time allocated and the stage of project (i.e. Whether new or preexisting). Those in bold are the primary objectives.

1. **To develop a HIPAA compliant research proposal that includes a testable hypothesis, study design, plan for biostatistical analysis and consent design if appropriate**
2. Develop the proposal into an IRB submission **or exemption**
3. To understand the financial needs of funding a project, including intramural (departmental, institutional) and extramural (industry, private foundations and federal agencies) funding options.
4. **To successfully complete the Committees on Human Research CITI training**
5. To be able to aid the research coordinator and PI in study monitoring, data collection, informed consent if it is part of on ongoing project
6. **To participate in, and perform data collection**
7. **To successfully analyze accumulated data and formulate results**
8. **To develop a formal presentation to the Department of Tadiology**
9. **To prepare a manuscript suitable for publication or abstract presentation at a national meeting**

Timeline

If full IRB approval is needed, or if funding applications are required, then project planning must start in the 2nd year or early 3rd year of residency.
If expedited IRB approval or addition to a preexisting approval is planned, and funding not needed, then the following schedule can be used:

Spring of 3rd year, prior to creation of block schedule:

1. Identify research supervisor
2. Identify research project and determine time commitment.
3. Research supervisor to sign off for appropriate length of elective time.
4. Time is likely best split to achieve all goals depending on if IRB/funding application needed.

>4 months prior to first research block

1. Complete the first part of the [Knack Research Elective documentation](#) including
   a. Project hypothesis and outline
   b. Project timeline
   c. IRB needs and approvals
   d. Funding needs/approvals
   e. Research block time allocated
   f. CITI training status
   g. Presentation/submission plans
2. Have your research mentor sign off on the form (Step 2) which will then be sent to the Resident Research Committee for review (note, allow 24 hours after submission of step 1 or new faculty members may not be able to access the interface to sign off)
3. Respond to any changes the committee suggests

6 weeks prior to project start

1. Complete CITI training if not already
2. Confirm IRB approval for project
3. Update Step 3 of the Knack form, uploading a more extensive project outline which will be sent to your mentor and the research committee
4. Respond to any recommended changes

50% of the way through your research allocated time

1. Update Step 4 of the Knack form, uploading a document project that defines progress with the project including data acquisition, analysis and plans for the remaining time. This will be sent to your mentor and the research committee.
2. Respond to any recommended changes

After the end of your research time, and before June 15th

1. Present the study to the department during noon conference (a 30-45 minute presentation)
2. Prepare an abstract for submission to a national meeting

3. Prepare a manuscript for submission
4. Update Step 5 of the Knack form, uploading a project summary, a copy of the presentation, abstract and manuscript if available

Residency Research Committee
May 2018