Research Elective

Goals
No field is growing faster than the neurosciences. This is witnessed by the growth of research in the neurosciences, both in the basic science and clinical arena. Our department continues to expand in both arenas, with a departmental mission of bringing basic science advances to the clinical care arena (“bench to bedside”).

Research will be allowed during elective time at the discretion of the program director after discussion with both the resident and the faculty member who will agree to sponsor such an elective and serve as “mentor” for the resident. A written proposal for what is to be accomplished during this elective must be generated prior to starting, such that the resident will gain the experience of designing an experiment. During the elective, the resident will learn and practice the scientific method and rigorous scientific technique while carrying out their project/experiment. Techniques learned may include laboratory skills (molecular and genetic studies, animal experiments, chemical/biochemical experiments, etc.) or clinical research skills (clinical trial methodology, epidemiology, biostatistics, etc.). Ideally, the resident's work will result in authorship on manuscript(s) or abstract(s). Residents will learn about the informed consent process and develop an understanding of HIPAA’s impact upon clinical research. In accordance with NIH Clinical Research standards, any resident participating in clinical research will be required to participate in Human Subjects Protection training (obtaining a Certificate of Completion for Web Based Course on Protection of Human Research Subjects).

Core Competencies:
1.) Patient Care: Patient care will be developed in clinical research projects. Residents will learn to care for patients within the confines of a clinical research study. Supervisory attendings will evaluate competence in the written evaluation.
2.) Medical knowledge: Medical knowledge will be obtained through background literature review in the research topic of interest. Practical knowledge regarding statistical analyses will be developed.
3.) Interpersonal Communication: Good communication with other researchers is necessary for collaboration in research. This competency is further developed if clinical research is being done, where the resident will learn how to obtain informed consent, enroll the patients, and communicate with regulatory personnel. Competence in communication will be assessed by supervisory attendings.
4.) Practice-Based Learning and Improvement: The resident will be responsible for working with supervisory staff and co-participants in troubleshooting the methods of the proposed research. Day-to-day problem solving is absolutely necessary for any research endeavor.
5.) Professionalism: The resident must remember that they represent OHSU’s Department of Neurology with all of their actions and communications while on
this rotation. The highest standards of professionalism must be maintained at all
times, especially in interactions with patients or with other research colleagues.
The resident will be responsible for tracking duty hours and reporting them to the
supervisory attending. Competence in professionalism will be assessed by
supervisory attendings.
6.) Systems-Based Practice: Research requires clinical equipoise and absolute
compliance with regulatory guidelines such as HIPAA for patient based research
and animal safety regulations for basic science research. The resident will learn
how to complete projects within this regulatory environment.

Objectives: (At the end of this elective, the resident should be able to…..)

   Describe the scientific method;
   Generate a hypothesis and an experiment to test the hypothesis;
   Carry an experiment through to conclusion;
   Understand the concept of clinical equipoise;
   Understand the regulatory issues in basic and clinical research; and
   Participate in the peer-review process.

Suggested Reading:
   • Selected reading as recommended by the faculty mentor.

Evaluations:
   1. Electronic evaluation by the faculty mentor in regards to accomplishment
      of the objectives listed above; and
   2. semi-annual evaluation by the program director.

Work Hours:
The estimated average number of work hours per week is 40-60. Four days off
(out of hospital with no clinical duties) must be observed each month. The adult
neurology rotator will participate in the senior neurology call pool (call
approximately every 8th night) during this rotation.

It is the responsibility of each resident to be in constant communication with the
supervisory attending regarding duty hours. In the event that any of the ACGME
duty hours regulations are in jeopardy of being violated the supervisory attending
physician must be notified immediately. It will be that attending’s responsibility to
rectify the situation immediately by appropriate means.