

Research Rotation Description

I. General Information

- a. **Rotation Length:** Minimum 2 weeks, and no more than 4 weeks at one time. Altogether, residents may complete up to 12 weeks on research rotations during the entire three years of training. Preliminary medicine residents may complete up to 4 weeks in research during the year of training.
- b. **Course Director:** Hayden Smith, Ph.D.
- c. **Faculty:** Residency faculty engaged in research, Dr. Hayden Smith.

II. Orientation

- a. Residents should schedule a meeting with Dr. Hayden Smith prior to registering for a research elective. They should also plan to meet with Dr. Smith at least one month prior to the start of an approved rotation and then regularly throughout the duration of the rotation. Dr. Smith can be reached at Hayden.Smith@unitypoint.org or 515-241-6141.

III. Rotation Description

- a. **Educational Purpose:** The purpose of this rotation is to allow the resident an opportunity to engage in clinical research, learn the principles of research study design and data analysis, and have the opportunity to write a paper to be submitted for publication or presented as a poster at a scientific meeting.
- b. **Principal Teaching Methods:** The principal teaching method will be participation in a structured research activity with supervision and assistance provided by experienced, approved faculty.
- c. **Educational Format:** The format will depend upon the research study selected. The proposed research must be approved by the program director, and the resident must identify a faculty preceptor with whom the resident intends to work. The resident must obtain approval and a faculty preceptor before the rotation is scheduled to begin. The resident must develop and present an outline of his or her

proposed research to the program director, and the resident must provide formal weekly updates of his or her progress. If necessary, the resident must submit an application to the Institutional Review Board (IRB). At the end of the research rotation, the resident must provide one of the following: 1.) a manuscript proposed for submission for publication; 2.) an abstract for a proposed poster presentation; or 3.) a written summary of his or her research, including lessons learned.

- d. **Educational Content:** The educational content will include a practical introduction to research design and implementation, medical statistics, data analysis, and the opportunity to either write a scientific manuscript or an abstract for a poster presentation.
- e. **Educational Materials:** Prior to the rotation, the resident should complete investigator training through the National Institute of Health (NIH; an on-line course that qualifies the resident to be involved in human subject research available at: <http://phrp.nihtraining.com>). The resident will have access to *Systematic Reviews*, an ACP publication by Matthew and Cook, and *How to Write and Publish Papers in the Medical Sciences* by Huth (see Dr. Yost).

IV. Competency Specific Learning Objectives

- a. **Medical Knowledge:** The resident will learn the basics of research study design and implementation, basic medical statistics, data analysis, and the process involved with obtaining IRB approval for research involving human subjects.
- b. **IPC:** The resident will develop and demonstrate the ability to write clearly and effectively as he or she develops a written research proposal, outline, manuscript, abstract, or summary of the research. The resident will also demonstrate clear, timely, and effective communications with his or her faculty preceptor, the course director, and any personnel involved with the research.
- c. **PBLI:** The resident will demonstrate the ability to take a clinical question and, in a thoughtful and precise manner, develop and design a research project to attempt and answer the question.
- d. **Professionalism:** The resident will conduct himself or herself at all times in an ethical manner. The resident will complete any required paperwork or documentation requested by the IRB in an honest and timely fashion. The resident

will scrupulously guard the confidentiality and privacy of any research subjects and adhere strictly to the rules and guidelines of the IRB, the NIH, and the institution.

V. Operations of the Rotation (What You Need to Know)

- a. Lines of Supervision and Responsibility:** The resident is directly responsible to the faculty preceptor. The faculty preceptor is responsible for direct and indirect supervision of the resident. The resident is also responsible to the program director, and must provide regular updates on his or her progress, and a final written manuscript, abstract, or summary of the research project.
- b. ACGME Duty Hours:** It is the policy of the program and the institution to adhere strictly to the ACGME Duty Hours. However, since this rotation does not involve direct patient care, the duty hours generally do not apply to the time spent in research. However, note that any clinical duties (e.g. call, Continuity of Care Clinic) do involve the delivery of patient care and require full adherence to the duty hours.
- c. Continuity of Care Clinic**
- d. Miscellaneous:** Dress may be casual, if appropriate. Any direct contact with patients or formal interaction with committees or administrators will, however, require that the resident be professionally attired. The research may be conducted in the location that allows the resident to engage in the research activity. Any departure from the Des Moines area during the standard work week must be approved by the program director, and the resident should continue to wear his or her pager.

VI. Evaluation

- a.** Evaluation will be completed by the course director on completion of the rotation. The resident should meet with the course director for a formal meeting to review performance. The course director will complete the evaluation on-line, using competency specific language, and any completed work product will be included in the resident portfolio.