

**Ronald Reagan UCLA Medical Center /Olive View-UCLA Medical Center Emergency Medicine Residency**  
**Scholarly Project Curriculum**

**Requirement:** Scholarly Project (PGY4)

**Site:** Various

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**Description of Requirement:**

The scholarly project is an important component of residency training. It is a required element of the Residency Review Committee (RRC): "The curriculum should include resident experience in scholarly activity prior to completion of the program. Some examples of suitable resident scholarly activities are the preparation of a scholarly paper such as a collective review or case report, active participation in a research project or formulation and implementation of an original research project. Residents must be taught an understanding of basic research methodologies, statistical analysis and critical analysis of current medical literature."

However, more important than merely meeting the RRC requirement, we place a great deal of importance on this project as it provides residents the opportunity for independent work, requires residents to utilize and reinforce their skills in locating information, using information technology, appraising information and assimilating evidence from scientific studies, and applying this information to patients. These tools are needed for life-long learning that will be part of every physician's career. While these skills are taught during clinical care, during Journal Club and in development of senior lectures on core curriculum, the scholarly project reinforces resident understanding and further development of these critical skills. The scholarly project requirement will be accomplished through one-on-one mentoring by faculty of choice and/or team work with peers and staff. The resident will also be responsible for completion of certain tasks on their own, to show their independent work, but have guidance from faculty and mentors.

Residents should choose the unique scholarly project and interests that fit their future goals. Developing a niche or area of expertise is encouraged for those interested in an academic career. Health policy, quality improvement and administration, research, ultrasound, disaster/EMS, and international health are just a few areas for the resident to consider in choosing a topic.

**Responsibilities:**

We are sensitive to the many demands that residency training places on our trainees, and that not every resident will pursue a career in research and/or academics. There are thus many options for residents to participate in or complete a different type of scholarly project during their residency. Residents should begin to have a formulated plan for their scholarly project by the start of their PGY2 year to insure sufficient time to complete the academic pursuit.

All scholarly projects must be approved by the program directors, and this approval should be sought prior to embarking on a project. It is strongly recommended the residents collaborate with faculty, as faculty mentoring during the project is essential to insure success. All residents' scholarly activity must result with the production of a manuscript that is suitable for publication as part of the curriculum or as scientific article presentation.

### **Goals and Objectives:**

The goal is for residents to conduct a mentored scholarly project during residency and develop skills to conduct scholarly work in the future. Upon completion of the research/scholarly activities, the resident will meet the ACGME's goal of advancing the residents' knowledge of the basic principles of research, including how research is conducted, evaluated, explained to patients, and applied to patient care.

The scholarly project's objectives help create a lifelong interest in scholarship and the skills needed to accomplish it.

- Improve resident's ability to conduct a literature review. Residents will develop greater competency in the location of information using information technology (with appropriate literature search during project development and manuscript development).
- Allow residents to develop greater competency critically evaluating the medical literature, its applicability to clinical practice, and how to expand upon current knowledge or implement current science in practice.
- Improve resident's ability to synthesize information, and improve their medical knowledge.
- Improve resident's understanding of published research in the literature.
- Allow residents to design and implement a project using scientific methods.
- Improve resident's ability to communicate information with the presentation and conveyance of findings to peers.
- Provide the resident an opportunity to become more competitive for fellowship and job selection.

### **Assessment:**

Residents are required to receive approval for scholarly projects from the PD. Upon completion of the scholarly project (research, case report, CQI, etc), the resident must submit a document of publishable quality for evaluation and review by the Program Directors. Presentation at the annual Emergency Medicine Research Day or presentation at regional and or national meetings will be evaluated by the Program Directors. Feedback from faculty mentors will be solicited by Program Directors as needed. Residents can expect, and should explicitly request regular feedback from faculty mentors as they progress with their scholarly project.

### **Examples of activities that qualify for the scholarly project:**

- A clinical case report of publishable quality.
- Co-authored text chapters and review articles.
- Development and deployment of an educational innovation designed to facilitate the attainment of competency in an emergency medicine skill area.
- Original research project. The resident serves as the principal investigator, co-investigator or sub-investigator in a faculty research project, culminating in a publishable quality scientific manuscript and presentation at a research meeting.
- Participation in a CQI project, including helping with the development of the project, participation in meetings, development of educational materials, collection and review of data and presentation of report.
- Community outreach or international emergency medicine project with development of program and plan for sustainability

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improvement and administration, research, ultrasound, disaster/EMS, and international health are just a few areas for the resident to consider in choosing a topic.

### **General Instructions:**

- Residents must complete and sign the Scholarly Project Proposal Form. Only projects approved by the Program Directors will be considered for credit as a scholarly project.
- All projects must have a faculty sponsor/mentor. While the resident is responsible for completing all tasks, the expertise of the faculty and one-on-one mentoring will make the project a success. The faculty mentor must co-sign the resident's Scholarly Project Proposal Form.
- Collaboration with more than one faculty, a co-resident, other ED staff (as in CQI projects), or other departments is encouraged. Many worthwhile projects are large in scope, and having collaborators, and a clear delineation of tasks and responsibilities will sustain the project and provide ample learning for each individual
- The project should be simple enough to be completed during the course of residency. This starts with adequate planning and mentoring.
- Develop a time line for tasks to insure you stay on track, and keep to that time line. Set regular meetings and deadlines with project mentors. Many steps (eg IRB approval) take much longer than you think. A good scholarly project, and/or publishable quality manuscript takes time to develop and perfect.
- Presentation of original research and projects is encouraged during the annual EM Research Day, as well as presentation at regional and or national meetings.
- The initiation and completion of the project, with final publishable quality manuscript or documents is ultimately the responsibility of the resident and is a requirement for graduation.

### **Specific Instructions for Original Research Projects**

Completion of a research project is encouraged, and the residents have a number of mentors and assistance to develop their own project or work on a faculty project at both UCLA and Olive View. Completing an original research project allows residents to gain experience in a range of research skills. The infrastructure that supports faculty research projects and the projects of the research fellows including the research associations can assist in projects. The completion of a resident research project requires mentoring and time, and we thus encourage residents choosing this type of scholarly work have a research question by their PGY2 year to insure sufficient time to complete all tasks.

- Residents should work with a mentor to develop a research question, first completing a search of existing literature to determine what is appropriate as the next research question.
- Residents are encouraged to participate in the department's monthly research meeting when the research faculty and fellows discuss ongoing projects, new questions, analyses, and grant plans. Residents should present their research project during the development stage for further guidance, and to establish mentors/collaborators.
- Residents should complete IRB training requirements and develop the IRB materials for their project.
- Residents should register their project on [clinicaltrials.gov](http://clinicaltrials.gov).
- Depending on the project, residents may develop grant materials for internal or external funding of the project.
- Residents will work with mentor(s) to develop study design, data collection and data analysis.
- The Emergency Medicine Research Assistants program at the RR UCLA Emergency Medicine center can help facilitate prospective data collection in the ED, following the presentation and approval of the project at the monthly EM research meeting.
- Residents may consider using 2-4 weeks of their elective time to have focused time to complete major tasks of their research project. If used, the elective time must have set goals/objectives, time lines, faculty

mentoring and faculty evaluation, in addition to the approval of the mentor and the Program Directors.

- Residents will take responsibility for authoring or co-authoring manuscripts developed as part of the research project.
- Residents will present their research at the annual EM Research Day
- Residents are encouraged to submit abstracts for their work to peer-reviewed regional, national or international meetings. A stipend is provided to partially offset airfare, lodging and other costs for approved peer-reviewed research presentations in the continental United States.