

UC Riverside, School of Medicine Policies and Procedures**Policy Title:** Medical Student Research**Policy Number:** 950-06-016

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Scope:	All UCR SOM Medical Students and Faculty

I. Policy Summary

This Policy Statement describes the School of Medicine policies and practices for providing medical students exposure to research experiences in laboratory Basic Science, Clinical, and Community-Based research settings. This is limited to the policies regarding providing access to different types of research experiences, and processes relevant to assessment of student performance in research settings. It does not address inter-institutional relationships (e.g., affiliation agreements, liabilities) or other responsibilities.

II. Definitions

- A. Basic Science Research** – Generally, wet lab-based experimental research activity, that may in some cases involve animal research.
- B. Clinical Research** – Research involving human subjects; this includes survey-based research projects in clinical settings, or database mining from clinical de-identified data sets that might not require Institutional Review Board (IRB) approval of a Human Subjects Protocol (i.e., “exempt”), or clinical research studies, including interventional clinical studies requiring an IRB-approved Human Subjects Protocol.
- C. Community-Based Research** – This includes qualitative research involving interviews of study subjects, or quantitative survey-based studies involving community members as study subjects.
- D. Scholarly Activity** – This is a broad category of academic activity that may include formal research as defined in the categories listed above, or less formal “research” activity that may include literature reviews, or activities that may fall into a general category of Quality Improvement/Quality Assurance studies.
- E. Mentor/Sponsor** – For the purposes of this policy, Mentor and Sponsor are interchangeable terms. Here, the Mentor/Sponsor is a faculty member, including any faculty with a UCR campus (e.g., CNAS, CHASS, BCOE, etc.) or UCR School of Medicine appointment, whether full time or not. This mentor/sponsor will provide oversight of a student during the research project experience, and when required, will also be responsible for assessment or grading of the student. Under some circumstances, faculty at other medical schools may be permitted to serve as a mentor/sponsor.

III. Policy Text

- A.** The Undergraduate Medical Education curriculum in the UC Riverside School of Medicine is based in large part on the principle of “evidence-based practice” and this is emphasized by providing educational experiences that highlight this principle.
1. Evidence-based practice builds on an ongoing process of research to understand disease mechanisms, identify therapeutic targets, develop safe and effective therapeutic strategies, as well as an understanding of other factors affecting patient wellness and clinical outcomes, including healthcare delivery systems, social determinants of health, and issues of social and racial equity.
 2. A major component of the educational experience promoting evidence-based practice is provided through the Longitudinal Ambulatory Care Experience (LACE), specifically the associated project-based Practice Improvement Projects (PIP) which are part of the core first three years of the curriculum. The PIP projects are mainly Quality Improvement (QI)-type projects, and will not be discussed further in this policy document.
 3. The policy described here is focused on the School of Medicine’s approach to providing formally organized research experiences as part of the undergraduate medical education curriculum, and its contribution to establishing a culture of evidence-based practice.
- B.** It is recognized that most medical students will not pursue careers in academic medicine or medical research, so the opportunities to pursue formally organized research experiences are in nearly all cases elective options. Students are encouraged to avail themselves of the opportunities provided throughout the undergraduate medical curriculum, especially in the fourth year, when elective research opportunities provide useful previews to clinical subspecialty practice, as well as provide experiences in preparation for clinical residency and clinical fellowship programs in various clinical subspecialties.

IV. Responsibilities

An underlying principle in providing research opportunities for medical students must be that the priority for students engaged in the research is to have rewarding experiences that provide insights into the principles of the scientific method, training in ethical and responsible conduct of research, especially as it pertains to human subjects research, and the translation of research results to application in clinical practice, based on principles of social equity. Research mentors are responsible for acknowledging their role in providing this experience.

A corollary to the underlying principle is that the research experience must be in an environment that assures the student’s personal safety, that the student is treated with respect, and not exploited as an uncompensated labor force.

V. Procedures

- A.** Starting with initial entering student orientation, all students will be provided with information on research opportunities available throughout the four-year curriculum. The School of Medicine website will maintain a webpage listing medical student research opportunities, along with available support resources, and contacts. The Senior Associate Dean for Research will serve as one of the main points of contact for students to contact for inquiries and assist them with coordinating research opportunities.
- B.** All students are required to take the basic Human Subjects training (provided through CITI) in the first year of medical school, and they must submit their certificate of completion of the training. The choice of any additional specialized modules is on the student's option. Since the certification is valid for three years, a renewal of the training is also required during the third year.
- C.** In the Summer break between the MS1 and MS2 curriculum, students have the option to apply for Summer Research Fellowships, in which UCR campus and School of Medicine faculty provide mentored research experiences. A prospectus of possible mentored research projects is distributed to students in the Spring, so that students can apply for projects in the coming Summer.
- D.** During the fourth year (MS4), students are encouraged to elect up to two 4-week Research Rotations. Students can identify a research project mentor among School of Medicine faculty, and develop a research project proposal for review and approval by the Senior Associate Dean for Research at least four weeks prior to the start of the research project, to ensure that the project has an appropriate research plan, and that appropriate documentation is in place (e.g., up to date certification of Human Subjects training, and IRB-approved Human Subject Research protocol). At the conclusion of the project an evaluation of the student's work on the project is submitted by the faculty mentor, and the student submits a written report (which may be (1) a brief summary of the project, (2) a poster for presentation at a conference, or (3) a manuscript for submission to a research journal).
- E.** Students are also encouraged to develop their own independent research projects, under the supervision of a faculty mentor. These may be initiated at any time during the undergraduate curriculum, and in some cases there may be opportunities to apply for funding to support the project. These projects are not required for graduation, and they cannot be performed in place of any other required component of the curriculum.

VI. Forms/Instructions

- A.** For the Summer Research Fellowships, a prospectus of possible research projects is distributed to all students, along with a form to apply for a project in the program.
- B.** For the MS4 Research Rotations, a form is provided for the student to fill out with details on the project mentor, project plan, and any required documentation as described above. Signatures from the research mentor and Senior Associate Dean for Research are required prior to the start of the project, as well as during the project itself, and finally after completion of the project and evaluation.

VII. Related Information

Research support services are made available to students, including Human Subjects protocol IRB navigation, and biomedical statistics consulting.

VIII. Revision History

Version 1.0: May 27, 2021 (DL)

Approvals:

MEDICAL EDUCATION COMMITTEE (06/17/2021)

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