

Student Research and Scholarly Activity Statement

UNE COM is committed to promoting and supporting COM student research. UNE COM fosters and encourages a culture of research and scholarship and maintains a rapidly growing research enterprise in the biomedical sciences, with a strong focus on cellular and molecular biology, the neurosciences, immunology, aging, and medical education. UNE COM's robust research environment has a significant impact on UNE's designation as a Research-2 (R2) institution under the Carnegie Classification of Institutions of Higher Education. Research activities at UNE COM are extended through the support of partnering sites, helping to further stimulate research and scholarly activities of UNE COM students throughout the training period.

UNE COM is continuously working to enhance research by thoughtfully integrating research training into required curricular activities, increasing the funding for its student research fellowship opportunities, establishing a Research-Elective Clerkship for fourth-year COM students, and providing administrative support to students who wish to pursue external research fellowship opportunities.

Activities and Policies

I. COM Curricular Requirements for Research and Scholarly Activities

A. Curriculum on Evidence-Based Medicine and Practice

Within the required Osteopathic Medical Knowledge (OMK) I course, osteopathic medical students have multiple sessions on understanding the research process and on critically analyzing and utilizing evidence-based medicine in clinical practice. Within these embedded modules taught throughout the entire OMKI course, students gain a basic understanding of study design, study types, biostatistics, epidemiology, and critical analysis of the scientific literature, all key components of an evidence-based medicine and practice curriculum. Students also learn about the strengths and weaknesses of these various aspects of evidence-based medicine, as well as common flaws and overinterpretations of scientific data. Specific learning objectives used in this curriculum can be found at the end of this document and in the Brightspace learning management system for the course, *OMKI*.

B. Year 1 and 2 Research Seminar Requirement

UNE COM mandates all OMSIs and IIs to attend a required number of research seminars and UNE COM-sponsored research symposiums. Below are excerpts from the current policies for seminar participation as stated in the *Osteopathic Medical Knowledge (OMK) course syllabi* for OMSI and II students. The complete course syllabi are included below.

OMK I Syllabus

Research Seminars and Symposia:

- i. Seminars are held weekly at noon (at least once/a month), although ad hoc presentations may also be designated. Prior permission from the Course Director(s) must be obtained for seminars if UNE COM does not host them.
- ii. Attend at least one Fall or Spring Research Symposium session during the Academic Year. The Fall Research Symposium are scheduled every Fall.
- iii. To receive credit for attending a Seminar or Symposium, students must sign the attendance sheet (if applicable).

Students attending the required Research Seminar and Symposium will receive a Meets Expectations (M) grade, and those who do not attend will receive a grade of Unsatisfactory (U). Students earning a grade of Unsatisfactory (U) will also earn an Unsatisfactory (U) as part of their Professionalism assessment and may be required to meet with the Committee on Student Progress.

OMK II Syllabus

Research Seminars and Symposia:

- i. Required attendance at one Research Symposia held during the semester. Research. Seminars are usually on Tuesday at noon or on other designated dates and times.
- ii. Attend the Fall Research Symposium during the academic year. The Fall Research Symposium is held in the Fall each year.
- iii. Grading for this area is pass/fail and based on attendance.

C. Years 3 and 4 Electives

In addition to specific research fellowships, medical students may choose to complete a minimum of 2 weeks and a maximum of 6 weeks of *Research Elective* during their clerkship period for OMSIVs, as detailed in the Student Handbook Supplement, Appendix D – *Clinical Training Manual*, for which they may earn academic credit. Students seeking credit must apply to the Associate Dean for Research and Scholarship for approval of the planned activity, including the project description and how the educational and evaluative criteria will be met. Medical students are also expected to present a poster or an oral presentation at one of the UNE research forums.

D. Clinical sites

During the clerkship years (OMSIII and OMSIV), UNE COM students are encouraged to write a case or participate in an ongoing clinical research project. These projects are supported by the Office of the Associate Dean for Research and Scholarship. Support ranges from assistance with research project development and planning to oversight of compliance, such as IRB approvals. There are no mandatory policies for our medical students to publish; however, publication is strongly encouraged, and UNE COM maintains relationships with journals such as BMJ Case Reports to offset publication costs. Students are encouraged to submit their presentations to the UNE COM Fall Forum, Maine Osteopathic Association forum, the Northeast Osteopathic Medical Education Network (NEOMEN) research forums, and/or national conferences.

E. Pre-doctoral Fellowship in Anatomy and Osteopathic Manipulative Medicine (OMM)

The *Pre-doctoral Fellowship in Anatomy and OMM*, administered by the anatomy faculty in the Department of Biomedical Sciences and the OMM Faculty in the Department of Osteopathic Manipulative Medicine, is designed to expand the educational opportunities for selected UNE COM students with guided learning experiences in the areas of medical education, research, osteopathic principles and practices, and anatomy. At the same time, they assist in all phases of the department's operations. Fellows will assist in lecturing, teaching, assessing, and counseling first- and second-year students. During the year, the fellow(s) provide clinical OMM services under the supervision of OMM faculty members.

They are encouraged to develop or participate in research projects with the assistance of the basic science and clinical faculty. The primary goal of this fellowship program is to provide the fellow(s) with the knowledge and skills needed to significantly contribute to teaching, clinical practice, and research in anatomy and OMM throughout their professional careers.

II. UNE COM Student Research Fellowships

All UNE COM students have the opportunity to apply for research fellowships, which include both internal and external fellowship programs.

1. *Peter Morgane Student Research Fellowship*

The Peter Morgane Student Research Fellowship (PMRF) provides an excellent opportunity for UNE COM students to participate and obtain experience in biomedical, clinical, experiential, or translational research. Research projects can have a basic science, community health, clinical, or osteopathic orientation. Students are encouraged to find faculty mentors through the UNE COM seminar series, faculty presentations, research day activities, and various student organizations. The PMRF provides each awardee with a stipend (\$3000), and funds for supplies (\$1000). All fellows must present their research and scholarship project at the UNE COM Research Day, the annual mid-winter Maine Osteopathic Association (MOA) meeting, or the NEOMEN Research Forum. All fellows are also encouraged to present their work at local, regional, and national conferences.

2. ***Carmen Pettapiece Student Research Fund Scholarship***

Additional fellowships are supported through the Student Government Association of UNE COM through funding by the Carmen Pettapiece Student Research Fund Scholarship. This additional research fellowship funding is similar in scope to the UNE COM PMRF, both of which are designed to support all areas of medically oriented research conducted by UNE COM students. The Carmen Pettapiece Student Research Fund Scholarship provides each awardee with a stipend (\$2000).

Notably, the Carmen Pettapiece awardees are chosen by a student panel, providing training in the critical review of research projects

3. ***External Research Fellowships***

There has been a growing interest in gaining additional training in research by applying for extramurally funded internships/fellowships, either for a summer or a year. The UNE COM Research website publishes links to several external research fellowships. With the mentorship of UNE COM faculty, many students have received external research fellowships.

Living Immersion Research Programs

Unique to UNE COM are two Learning by Living immersion research programs: (1) Learning by Living Nursing Home Immersion "admits" medical students into nursing homes to live the life of an elder resident for 2-weeks, complete with a diagnosis and standard procedures of care; and (2) Forty-eight (48) Hour Hospice Home Immersion wherein medical students are immersed into the Gosnell Memorial Hospice Home for 48 hours to conduct patient care, family support, and post-mortem care. Both projects are based on qualitative ethnographic research methods.

III. UNE COM Elective Research Orientation and Training

The Office of the Associate Dean for Research and Scholarship, in collaboration with the UNE COM faculty and the student-led research organization, offers a series of elective research training sessions designed to fit within the first and second-year curriculum. These sessions start with a basic research orientation highlighting specific opportunities at UNE COM. Additional sessions focus on topics such as selecting a mentor, writing an abstract, or creating a poster. These sessions are informal, giving students—whether they have research experience or not—an opportunity to learn, participate at their comfort level, improve their training, support their medical education, and lay a foundation for a future generation of physician-scientists.

IV. UNE COM Research and Scholarship Forums

To further enhance the research and scholarship culture in UNE, COM hosts a Research and Scholarship Forum to provide a venue for COM students to present their research projects (including research-in-progress) to the UNE community. All UNE COM students can submit abstracts and present posters at this event. Faculty members judge all posters with awards given to the best presentations in the categories of "Clinical Research," "Basic Science Research," and Education Research." Research Forum activity includes a keynote speaker and oral presentations by selected students and faculty members. Additional oral presentations by faculty and students are often arranged within the same week or month as the Research Forum to create more excitement about this research and scholarship event among the UNE COM students.

In addition, UNE COM students have an opportunity to present their research at the Maine Association of Osteopathic Medicine annual meeting (in February each year in Portland, Maine) and the yearly NEOMEN Research Forum (in May each year). To encourage participation from medical students, NEOMEN underwrites funding for third-year students to attend the NEOMEN Research Forum.