

College of Osteopathic Medicine of the Pacific Research Strategic Plan 2021-2027

Mission

The College recognizes the synergistic relationship between teaching and research. The faculty will educate students to create, integrate and communicate biomedical knowledge. Our goal is to make biomedical discoveries and educate clinicians and scientists as future leaders in healthcare.

Vision

Our vision is to improve human health through excellence in education and research.

Core Research Values

- The faculty will be respectful and cordial with all its members and will engage in interdisciplinary communication and collaboration in research.
- The College will encourage faculty development through resource commitment and will recognize and reward merit.
- The faculty recognizes the importance of DO student involvement in research
- The College and faculty will strive for continuous improvement in quality research.
- The College will support current and future research and focus on development of WesternU-initiated research clusters.
- The College will encourage collaboration and communication with surrounding institutions through seminars, conference participation, teaching and research.
- The faculty and administration are committed to promoting research ethics, integrity, and honesty.
- The College and administration will be respectful of and contribute to diversity among faculty, students and staff engaged in research activities.

Research Strategic Plan

WesternU is an institution devoted to life-long learning that values scholarly activity supportive of our mission, vision, and core values. Over the years, COMP and COMP-Northwest (the College) has cultivated a solid foundation of faculty- and student-driven scholarly activity. Scholarly activity encompasses that pertaining to teaching, learning,

engagement, and discovery. The end goal for the first two forms is to make pedagogical improvements and advancements. Scholarship of engagement is related to public outreach in response to local community needs where the results can provide solutions to community problems. Finally, the scholarship of discovery is the pursuit of knowledge for its own sake in the hope of translating the findings into the development of therapeutics and the solution to clinical problems. In all its forms, scholarly activity is predicated upon the rigor, or lack thereof, related to previously published work, which leads to the acquisition of new knowledge. Inherent to this process is the ability to integrate information using several different approaches and a variety of sources.

In this strategic plan, we have prioritized and combined the current and future goals of the basic science and clinical departments within the College as they pertain to research and scholarly activity. This theme consists of specific goals and objectives that will form the foundation of our Research Strategic Plan for the next 10 years, completion of some of which will extend beyond this period. The goals for this Research Strategic Plan are listed in order of priority. Each goal has a set of objectives that are specific, measurable, attainable, relevant and time bound.

Excellence in Research, Scholarship, and Funding

Goals:

- 1. Work with the College Research Committee and WesternU administration to build a state-of-the-art research infrastructure to support current research needs and allow for future expansion.**
- 2. Recruit and retain a nationally and internationally recognized research faculty and build focused “Research Clusters”.**
- 3. Collaborate with Graduate College of Biomedical Sciences (GCBS) and other WesternU colleges to develop a PhD program, and to support and sustain student research involvement.**
- 4. Strengthen partnership with WesternU associated hospitals and outside research institutions for sharing of core equipment, research space and grant collaborations.**
- 5. Work with WesternU administration to significantly improve college and university-wide services for the administration and support of research grants.**
- 6. Achieve national prominence in NMM/OMM research**
- 7. Develop a primary care research arm**

Goal 1: Work with the College Research Committee and WesternU administration to build a state of the art, well equipped research infrastructure that supports current research needs and allows for future expansion

Research infrastructure improvements will be mediated by the College Research committee, which encompasses representatives of all college disciplines in the basic medical and clinical sciences. The committee serves (a) to promote, support, and engage osteopathic medical students in basic and clinical research; (b) to promote basic and clinical research of college faculty; (c) to identify and address research challenges (funding, equipment, space, personnel, etc.); (d) as liaison between college researchers and the Office of Senior Vice President of Research and Biotechnology. The Committee consists of 11 faculty members representing the basic science and clinical departments at COMP and COMP-Northwest. Current members are as follows:

COMP

- i. Chair - Dr. Miklos Peterfy (Basic Medical Sciences)
- ii. Dr. Airani Sathananthan (Internal Medicine)
- iii. Dr. Xiaoning Bi (Basic Medical Sciences)
- iv. Dr. Tierra Nalley (Anatomy)
- v. Dr. Maryam Othman (Population Health Science)
- vi. Dr. Fraix till 2023 (Clinical Sciences and Population Health Science)
- vii. Dr. Hendrik Szurmant (Basic Medical Sciences; liaison to the WU Research Committee)

COMP-Northwest

- i. Vice Chair - Dr. Brion Benninger (Anatomy)
- ii. Dr. Elisabeth Guenther (Clinical Sciences)
- iii. Dr. Glen Kisby (Basic Medical Sciences)
- iv. Dr. Jeannie Davis (Population Health Science)

Individual items to be addressed:

- i. Develop plans to identify a location for building a new multi-purpose Research Excellence Center to meet current and future research needs.
- ii. Invest in a research infrastructure that supports collaborative projects by acquiring more core equipment following the needs of the Pomona and Lebanon campuses.
- iii. Work closely with the Development Office and WesternU and the College Office of Alumni Affairs to identify potential industry sponsors and philanthropic donors that could fund endowed faculty positions.
- iv. Maintain a technical laboratory staff that helps support and sustain faculty research productivity, that helps train masters and doctoral students and generate critical data for grant proposals.
- v. Establish a policy whereby 15% of the University indirect costs coming to the College goes to individual researchers.
- vi. Set up a stockroom that houses common research supplies for the College and WesternU research faculty.
- vii. Utilize standard matrices to analyze success or failure including:
 - a. faculty surveys.
 - b. DO, Masters and PhD-level student surveys
 - c. number of MS/PhD graduates and research technicians.
 - d. number of DO and residents in research projects.
 - e. number of the College research faculty.

- f. Total amount of federal and state funds
- g. number of published papers, abstracts, and presentations

Goal 2: Recruit, retain and nurture a nationally and internationally recognized research faculty and build focused “Research Clusters”

- i. Identify priorities for next round of faculty recruitments and implement searches.
- ii. Enhance recruiting efforts for new faculty hires.
- iii. Identify funding sources that provide competitive start up packages on par with other surrounding institutions to attract quality faculty whenever a faculty member leaves, or when new faculty lines become available.
- iv. Strategically integrate faculty hiring and research activities with GCBS and explore opportunities for shared faculty positions with other Colleges.
- v. Develop research programs that build upon our current strengths.
- vi. Enhance faculty development and promote opportunities to participate in grant-writing and career development workshops.
- vii. Encourage faculty members with similar research interests to explore opportunities of potential collaboration and ultimately become co-investigators on new and/or competitive renewal grant applications.
- viii. Increase multi-investigator proposals. Stronger collaborations within established research clusters will be key focal points for future multi-investigator grants. The Department will foster these collaborations with potential “partnering” mechanisms from other funding streams. The clear limitation to this is the availability of “partnering” resources to incentivize this collaboration.
- ix. Enhance faculty retention by establishing competitive pilot and bridge funds to help support research activities of junior faculty, as well as established and productive faculty who have temporarily lost their funding.
- x. Further develop WesternU-based focused Research clusters which may include:
 - a. Integrative Neurobiology/Advanced Biomedical Technologies
 - b. Molecular and Metabolic Diseases
 - c. Infectious Disease and Immunology
 - d. Global and Community Health and Lifestyle Medicine
 - e. Educational Research
 - f. One Health
 - g. Drug Discovery and Development
 - h. Organismal, Functional, and Evolutionary Biology
 - i. Health Policy & Practice
- xi. Increase the success rate of research proposals. The College will explore establishing an internal review committee for grant proposals to provide feedback to principal investigators on grant proposal quality, structure, methodology, and communication of the research ideas.

- xii. Encourage collaborative research strategies that maximize the potential for successful funding.
- xiii. Assessment: Utilize standard matrices to analyze success or failure including:
 - a. Faculty surveys.
 - b. Number of joint publications.
 - c. Number of extramurally funded grants.
 - d. Amount of intramural funding.
 - e. Number of MS/PhD graduates.
 - f. Number of DO students and residents in research projects.
 - g. Number of college research faculty contributing to the graduate program by giving lectures and training graduate students.
 - h. Percent research faculty effort dedicated to the graduate program.
 - i. Number of research clusters developed and their success.

Goal 3: Accomplish and sustain excellence in student research training and develop a PhD Program.

- i. Collaborate with the GCBS and other colleges to develop a WesternU-wide PhD program.
- ii. Help to implement an integrated dual DO/PhD program to meet a shortfall in availability of individuals with this unique combination of research and clinical osteopathic training. Students from both campuses would be eligible and would be able to choose a mentor from either campus.
- iii. Coordinate with the graduate school, Faculty Senate and the WesternU administration on the various steps required for approval.
- iv. Work with the Development Office and other colleges to secure funds to support doctoral stipends.
- v. Involve more DO students and residents in research projects. Establish competitive research fellowships for DO students engaged in clinical or basic science research.
- vi. Support and mentor DO students particularly interested in research via a longitudinal biomedical and clinical research track on both campuses.
- vii. Support multiple MSBS students to work with the College research faculty.
- viii. Integrate the College seminar series with the GCBS.
- xiv. Assessment: Utilize standard matrices to analyze success or failure including:
 - a. Student surveys.
 - b. Faculty surveys.
 - c. Number of joint publications.
 - d. Number of extramurally funded grants.
 - e. Amount of intramural funding.
 - f. Number of MS/PhD graduates.
 - g. Number of dual DO/PhD graduates.
 - h. Number of DO students and residents in research projects.
 - i. Number of College research faculty contributing to the graduate program by giving lectures and training graduate students.
 - j. Percent research faculty effort dedicated to the graduate program.

Goal 4: Strengthen partnerships with WesternU colleges and outside research institutions for sharing of core equipment, research space and grant collaborations

- i. Establish “new” institutional linkages with other colleges and outside institutions. Explore joint research interests with faculty from other colleges. This would need to be both individual investigator driven as well as supported by the respective colleges and other institutions. Opportunities into clinical research should be explored and better coordinated with clinicians.
- ii. On the Pomona campus COMP faculty will be encouraged to partner with other WesternU colleges to share core as well as purchase specific equipment.
- iii. On the Pomona campus COMP faculty will be encouraged to partner with faculty at local research institutions including: Cal Poly Pomona, Loma Linda, Claremont colleges, University of La Verne, as well as the UCs and CSUs in southern California.
- iv. On the Lebanon campus COMP-Northwest faculty will be encouraged to partner with OSU and OHSU.
- v. Assessment: Utilize standard matrices to analyze success or failure including:
 - a. Faculty surveys.
 - b. Number and depth of commitment of external partners.
 - c. Numbers of joint projects, funding and manuscripts

Goal 5: Work with the WesternU administration to significantly improve the College and WesternU-wide services for the administration and support of research grants.

- i. Subject to compliance with State and Federal laws, the role of the PI in the hiring process should be maximized. The Human Resources department should play a support role in the hiring process. Where appropriate, qualified candidates can be considered for exempt status in accord with the rules and regulations of the State of California and WesternU.
- ii. Allocate more IT personnel who can provide direct support for research related activities.
- iii. Execute current plans to improve research growth. Control of College-allocated research space should be under college rather than university direction.
- iv. Improve communication between Purchasing and end-user research faculty to expedite delivery of perishable chemicals across campus.
- v. Work with the VP for research to hire a research regulatory compliance officer.
- i. Assessment: Analyze degree of success by utilizing multiple independent measures that include:
 - a. Faculty, postdoctoral and technical staff surveys.
 - b. Frequency of communication among the interested parties.

Goal 6: Achieve national prominence in NMM/OMM research

In keeping with the NMM/OMM department’s support of the College and Western University’s research and scholarly activity goals, the NMM/OMM department has

established several internal strategies to help the College achieve recognition as a national leader in OMM research.

- i. Develop and maintain a solid infrastructure and culture of research for NMM/OMM faculty and students.
 - a. Maintain and grow a clearly defined and well-focused research program that integrates with the University Research Clusters to advance osteopathic medical knowledge.
 - b. Introduce, support and reinforce the teaching and implementation of research methodology across all four years to position students to excel in evidence-based osteopathic medical practice and continue to engage in research activities that improve the practice of medicine and patient care.
 - c. Support student and clinical faculty participation in state and federal legislative advocacy organizations such as Osteopathic Physicians and Surgeons of California (OPSC), Osteopathic Physicians and Surgeons of Oregon (OPSO), California Medical Association (CMA), American Osteopathic Association (AOA), American Medical Association (AMA), American Association of Colleges of Osteopathic Medicine (AACOM).
 - d. Continue to provide the research literature for the above referenced organizations to be used for advocacy and policy making throughout the osteopathic and allopathic professions, and at statewide and national levels.
- ii. Develop and maintain a departmental focus on scholarly activity for faculty and students.
 - a. Introduce, support, and reinforce the pursuit of scholarly activity across all four years to position students to excel in evidence-based medical practice and continue to engage in research activities that improve the practice of medicine and patient care.
 - b. Facilitate opportunities for research to promote scholarly activity for student career and professional development portfolios.
 - c. Actively engage students in lifelong learning by inspiring clinical excellence and scientific inquiry.
 - d. Promote and mentor students to serve as peer reviewers for the JAOA.
- iii. Assessment: Analyze degree of success by utilizing multiple independent measures that include:
 - a. Establish measures of success for faculty research that support student scientific production and residency placement.
 - b. Numbers of student contributions to the NMM/OMM literature.
 - c. Determine attendance of OMM fellows, faculty, and students at DO day on Capitol Hill, both in Sacramento and Washington, DC.
 - d. Document the number of OMM fellows, faculty and students serving as representatives to OPSC, OPSO, AOA and AACOM meetings.

Goal 7: Develop/Expand the Clinical Research Arm

- i. Develop and maintain a solid infrastructure and culture of research for clinical faculty and students.
 - a. Maintain and grow a clearly defined and well-focused research program that integrates with the University Research Clusters to advance clinical knowledge. Encourage interdepartmental and translational research collaborations with basic science, anatomy and clinical departments.

- b. Introduce, support and reinforce the teaching and implementation of research methodology across all four years to position students to excel in evidence-based medical practice and continue to engage in research activities that improve the practice of medicine and patient care. Including sessions taught by library staff and through biostatistics course/ISSM. Ensure students are comfortable using resources like PubMed.
- c. Encourage faculty to utilize research support staff available at the university level to help in their clinical research efforts (e.g., Contracts, Investigator-initiated grants).
- d. Encourage Faculty to obtain extramural funding and utilize Office of Sponsored Research to assist with management of funds.
- e. Providing students/faculty with technical support. This should explicitly involve IT and statistical support experts, so that researchers/students can learn/understand more about study design and data analysis
- ii. Develop and maintain a focus on scholarly activity for clinical faculty and students.
 - a. Introduce, support and reinforce the pursuit of scholarly activity across all four years of medical education to position students to excel in evidence-based medical practice and to continue to engage in research activities that improve the practice of medicine and patient care.
 - b. Facilitate opportunities for research to promote scholarly activity for student career and professional development portfolios.
 - c. Actively engage students in lifelong learning by inspiring clinical excellence and scientific inquiry. Encourage student involvement in Journal Clubs.
 - d. Encourage participation in the student Research Journal (i.e., PNWSRJ).
 - e. Encourage students to seek research mentors both within and outside WesternU. Continue to build and grow research collaborations and student research opportunities with partner academic medicine institutions.
 - f. Encourage clinical, translational and educational research with protected time for faculty to do mentorship and training/mentorship opportunities.
- iii. Assessment: Analyze degree of success by establishing and utilizing multiple independent measures. Examples of these may include:
 - a. Measures of success for faculty that support student scientific research production and residency placement.
 - b. Track numbers of student contributions to the medical literature.
 - c. Track student attendance at research and academic meetings, especially at which they are responsible for poster and oral presentations.
 - d. Monitor clinical faculty presentations/publications and funding received.

Staff Excellence

The College recognizes that accomplishment of significant research goals requires not only excellent faculty, but also excellent research and support personnel. Thus, staff excellence will be achieved through the following goals.

Goals:

1. **Retain highly qualified research personnel.**
2. **Attract talented and highly qualified research personnel.**
3. **Provide job skill training and encourage professional development.**

Objectives:

Goal 1: Retain highly qualified research personnel.

- i. Recognize that personnel retention is a vital process that is not only cost-effective, but also promotes retention of College-specific “institutional knowledge”, enhances staff efficiency and promotes collegiality.
- ii. Continue to provide a competitive salary after hiring
 - a. To minimize losing trained and talented personnel to other academic institutions, achieve and maintain salary and benefit parity to these institutions.
 - b. Establish specific guidelines for supervisors to recommend salary increases based on experience.
 - c. Provide incentives to reward highly productive research personnel:
 - 1) Set specific goals that, when accomplished, would allow the supervisor to recommend a reclassification in position/rank.
 - 2) Promote recognition of specific or outstanding service provided by research personnel to the College. Informally acknowledge and express appreciation for work that is well done.
- iii. When possible and as appropriate, enhance flexibility in the workplace.
- iv. Annual personnel evaluation:
 - a. Perform yearly evaluations of all research personnel by their direct supervisor.
 - b. Provide optional yearly surveys of personnel performance to faculty members assisted by the research staff, to encourage them to provide feedback to the individual’s direct supervisor.
 - c. Encourage all faculty/staff to directly communicate with the staff member’s supervisor when a research staff member has exceeded expectations in each role/project.
- v. Assessment: Analyze success or failure by utilizing independent measures such as:
 - a. Anonymous surveys of research personnel regarding their job satisfaction, the likelihood of staying in their position and their feelings on the structure/transparency of the reclassification/promotion system.
 - b. Utilize existing HR exit survey to interview research staff members who are voluntarily leaving their position to determine reason(s) why.
 - c. Survey faculty and staff to determine their satisfaction with the numbers and types of social and casual interactions between research staff and faculty.

Goal 2: Attract talented and highly qualified technical personnel that fit into the College culture.

- i. As the College research programs grow, it is anticipated that additional research staff will be needed. Work with HR to streamline and improve the “People Admin” system used for hiring.

- ii. Produce better job descriptions for use in hiring research staff.
- iii. Offer competitive starting salary packages to attract the best candidates.
- iv. Assessment: Analyze success or failure by utilizing independent measures such as:
 - a. Surveying faculty and staff involved with the hiring process on ease of hiring process, numbers of applicants and quality of applicant pool, and number of candidates who were offered positions that accepted the position.
 - b. Survey research staff supervisors to determine satisfaction with newly hired personnel.
 - c. Determine number of new hires that fall into permanent, long-term temporary and short-term temporary categories.

Goal 3: Provide job skill training and encourage professional development via:

- i. Encourage attendance of seminars/skills training that cover a wide range of topics, including:
 - a. Development of research staff-specific Center for Excellence in Teaching and Learning (CETL) workshops.
 - b. Subsidize travel cost to encourage staff attendance of scientific conferences for professional development.
- ii. Assign mentors to help with personal and/or career development.
- iii. Increase opportunities for personal and professional development.
- v. Assessment: Analyze success or failure by utilizing independent measures such as:
 - a. Number of training events, on and off campus, attended by research staff
 - b. Surveying research staff for relevance/usefulness of specific seminars/training events.
 - c. Encouraging research staff input in the creation/scheduling of future training modules/seminars.