

Office of Research
Strategic Plan, June 2016

Introduction

Since its early beginnings, UC Irvine's pioneering spirit of innovation and experimentation have distinguished it among peer institutions. Without the weight of history, tradition and established expectations to shoulder, UCI's founders were free to embrace the power of "different" in establishing the campus. Now, 50 years later, UC Irvine continues to recognize the importance of thinking differently as the campus writes the next chapters in its history. As put forth in the recently completed campus strategic plan, "Diversity of experience and thought is a precondition for productive deliberation, an essential component of our fundamental scholarly and research mission."

Research universities commonly use the level of research funding as a basic measure of quality and impact. During his investiture as UC Irvine's sixth Chancellor, Chancellor Howard Gillman described a comprehensive vision for the campus over the next five years that included the need to increase extramural research funding to \$500 million dollars per year. This goal will be the focus of efforts in the Office of Research for the next five years.

The mission of the Office of Research is to support and enhance the creative and scholarly activities of the UCI faculty. Operationally, the office oversees the review and submission of proposals to extramural sponsors for research, training and public service projects. In addition, the office is responsible for negotiating and accepting awards; drafting, negotiating and executing subcontracts; and ensuring institutional compliance with Federal and State regulations related to research. Furthermore, the Vice Chancellor for Research uses an investment budget to support the research infrastructure of the campus, to provide cost sharing, to provide bridge and seed funding, and to contribute support to Organized Research Units, Campus Centers and Special Research Programs. The Office of Research is the administering unit for Organized Research Units, Special Research Programs, and a variety of shared facilities, including University Laboratory Animal Resources and the Transgenic Mouse Facility.

The Office of Research will engage with the campus scientific community to pursue increased research funding on the campus through 1) investing in the creative and scholarly power of the UCI faculty and the research infrastructure of the campus; 2) identifying and exploiting new research funding sources and partnerships that are aligned with the scientific strengths and priorities of the campus; and 3) breaking down operational barriers to initiating and conducting research on campus. Strategies will be well coordinated with the strategic vision of the Vice Chancellor for Health Affairs with particular attention paid to high priority areas, such as health and human well-being, convergence science and engineering, and team science with high public impact. Guiding principles in the approach to each strategy will include a strong emphasis on engagement and deliberation in strategic decision-making, while maintaining the capacity to respond to timely research opportunities.

Goal: Invest in UCI's research faculty and infrastructure

Strategy: Direct investment in faculty driven research

In 2015-16, the Vice Chancellor for Research, together with the Provost, the Vice Chancellor for Health Affairs and the Executive Director of Applied Innovation developed and launched UCI's first large-scale research seed funding program and a technology development innovation fund. The offices provided \$1.75 million to fund efforts aimed at increasing the likelihood of success of extramural research or center proposals from federal, state and other sponsors and to support projects that show promise for commercialization. The Office of Research intends to establish the Seed Funding program as a permanent, annual program.

"Bridge Funding" program is also a critical investment in the research faculty. A recent analysis of the bridge funding program from 2007-2014 revealed that the Office of Research invested \$2,221,434.00 in support of bridge fund requests. Of the total requests funded, 67% of the Principal Investigators re-established funding within two years, with a return of \$19,260,137.00 in extramural research funding to the campus.

Strategy: Refine the Office of Research investment strategy for supporting the organizational structures fostering collaborative research on campus, such as Research Centers & Institutes and Core Facilities.

The Office of Research plays an important role in the development and support of high-priority research centers and institutes, including the Organized Research Units, Special Research Programs, and Campus Centers. The guidelines for establishing, managing, reviewing, and disestablishing these structures have served the campus needs during its formative years, but present some limitations in the current research climate. The Office of Research will conduct a comprehensive review of the existing research centers and institutes and their guidelines in order to address current priorities. Recommendations will be developed for new or revised guidelines with the specific goal of providing for *healthy turnover*. This will be critical in allowing the campus to invest in emerging areas of scholarship.

Large-scale investments in major research instrumentation require high level technical support, long term financial and business planning, and the cooperation of multiple units on campus. The Office of Research will develop a system for evaluating the demand, feasibility, and ongoing evaluation of core facilities. Initially, a comprehensive campus-wide inventory of existing cores will be taken. Further analysis, including costs analyses, the evaluation of various financial modeling options, and the development guidelines for administering and managing research cores will follow. This review will be coordinated with the Vice Chancellor for Health Affairs, to insure that the goals are synchronized with the strategic vision of the health sciences.

Goal: Explore new and alternative research funding sources and partnerships aligned with the strengths and priorities of the campus

Strategy: Execute a targeted strategic plan to capture new federal funds to support UCI research programs

As we seek to increase extramural funding it is absolutely vital to increase the visibility of UCI's faculty and senior leadership in Washington DC and to target federal agencies that have traditionally represented a smaller fraction of UCI's total research portfolio, e.g., the Department of Defense (DoD) and the Department of Energy (DOE). For example, from 1999-2015, DoD and DOE funding have represented a constant, yet very small percentage (less than 10%) of our total extramural research funding. In order to address this issue, last year the Office of Research recruited an executive director for federal research relations. Over the past year, the Office of Research has developed strategic

initiatives to enable UC Irvine faculty to capture new agency funding. These programs have included faculty training, agency staff engagement, and strategic funding advisement. The Office of Research will continue to establish strategic opportunities for faculty to work directly with a variety of federal agency officials by funding faculty travel to Washington DC and agency sponsored conferences.

It is also important that the campus adopts a strategic approach to other federal agencies (i.e. NIH, NSF). Last year the Office of Research signed an agreement with McAllister & Quinn, a Washington DC consulting firm with extensive relationships with federal agencies. McAllister & Quinn is providing UCI with intelligence regarding funding trends within specific agencies and will help the campus “map” these opportunities with UCI faculty and research groups. Finally, McAllister & Quinn also provides access to an experienced grant writing team of more than 200 experienced professionals that can help UCI faculty develop large proposals, such as NIH U54 grants, DOE` Energy Frontier Research Centers (EFRCs) and NSF Materials Research Science and Engineering Centers (MRSECs).

The Office of Research will continue to identify new agency funding and connect UCI faculty with relevant opportunities when they are identified. Proactive faculty engagement, combined with a variety of programmatic strategies, will position UCI to increase its overall level of extramural funding.

This includes:

- Cultivating relationships with federal agency program managers
- Forecasting Congressional and Administration funding priorities during the FY2017 budget process
- Influencing and shaping agency funding solicitations
- Aligning UCI’s strategic research projects with national priorities
- Building partnerships between government, UCI, and industry to support new institutional research projects, centers and consortiums

Strategy: Cultivate a strong partnership with Applied Innovation to optimize productive research relationships between UCI faculty and industry

To fully realize the vision of enhancing the commercialization of innovative research, it is important that the Office of Research and Applied Innovations maintains regular communications and develops innovative, catalytic programs, such as the technology development innovation fund.

Strategy: Cultivate a strong partnership with the Office of Global Engagement to strengthen and expand UCI’s international research collaborations

The Office of Research will work with Office of Global Engagement to enhance existing international research partnerships and will work to identify potential international research opportunities that match with academic strengths on our campus or stimulate new international collaborations.

Strategy: Cultivate a strong partnership with University Advancement in order to develop robust philanthropic support for UCI’s research enterprise

The Office of Research will foster enhanced communication between the Office of Research units and University Advancement in order to build philanthropic support for research activities and structures on the campus. Organized Research Units, Special Research Programs, and a variety of core research facilities report to the Office of Research. It is important to insure that University Advancement is informed of the innovative work by our centers to help attract additional philanthropic support.

Goal: Break down operational barriers to initiating and conducting research on campus

Strategy: *Improve the grant submission processes to increase the number of proposals submitted for extramural funding*

To further enhance and support the research activities on campus, Sponsored Projects has initiated a comprehensive evaluation all workflows and policies for submitting grants and negotiating and approving contracts. This internal review is identifying specific areas for revision that will streamline the grant submission process and reduce the time for accepting contracts.

The leadership team in Sponsored Projects emphasizes the importance of maintaining a service-oriented culture, of taking a balanced approach to risk, and of having meaningful engagement with campus stakeholders. Sponsored Projects utilizes a “wiki” approach, similar to the campus strategic plan, in order to capture suggestions from all stakeholders. This approach will foster a continual dialogue on how to optimize internal submission processes within an ever-changing regulatory and funding environment. It will produce new efficiencies and will set the foundation for reducing the “activation” energy for submitting protocols and grants and for facilitating the acceptance of contracts.

Strategy: *Reduce regulatory burden and delay in initiating new projects, particularly in the life sciences and in research projects involving human or animal subjects*

To increase our extramural funding, it is critical that our regulatory procedures have the bandwidth to process the associated increased numbers of protocols that will be reviewed by our regulatory committees (IRB, IACUC, COIC, hSCRO). The Research Protections leadership team has launched an internal assessment of all regulatory review processes under the Office of Research umbrella, as well as their associated campus policies. A series of revisions and improvements are already underway, including, for the first time at UCI, the implementation of a commercial software solution to improve management and review of animal research protocols. This system also has the flexibility to be extended to the other regulatory committees, including the Institutional Review Board and Conflict of Interest Oversight Committee. Evaluation for the potential use of the system by those units is underway.

Strategy: *Re-establish a campus-wide research administration training program for staff*

The efficiency of review by the various regulatory and funding related entities in the Office of Research is significantly impacted by the quality of the study documentation provided. As a whole, the collective campus level of experience and expertise in preparing grant application packages, regulatory review documents and consent forms, and broad range of other documents has suffered due to the lack of organized training coupled with staff turnover and overall downsizing in the departments. The Office of Research has initiated a new training program that takes advantage of new technologies (video), online software programs, and live presentations entitled “Life Cycle of an Award”, in order to address this issue. Further expansion of training and education in research administration is in planning.

Strategy: *Bolster UCI’s competitiveness for extramural funds with targeted training for new or junior faculty members, particularly in the health sciences*

In collaboration with the Institute for Clinical and Translational Sciences (ICTS), the Office of Research will launch a program entitled "RO1 Bootcamp". Patterned after the very successful program at the University of Michigan, the program will help faculty members successfully compete for their first RO1 grants from NIH. Expansion of a similar program focused on NSF funding is under consideration.