

The Portfolio Review Group (PRG) was appointed by Vice President for Research and Graduate Studies Steven Beckwith in the fall of 2012 and tasked to review the systemwide research program. This was the first attempt to systematically review the University of California's systemwide research portfolio (the portfolio). Twenty-one systemwide research programs were reviewed for their alignment with the University-wide research funding principles (the principles)¹ and for their level of systemwide funding. The results of the PRG review were summarized in three reports released between June 2013 and February 2014.^{2,3,4} In addition to conducting the portfolio review, the PRG was charged with suggesting long-term strategies for maintaining a vibrant and well-balanced research portfolio of current and future systemwide research programs.

In considering future systemwide research programs, the PRG did not identify specific areas of inquiry or research opportunities. The identification of areas of new research opportunities is organic and is best driven by the vibrant and dynamic research enterprise on each campus. However, there is a role for UCOP in nurturing and supporting ideas percolating up from the campuses that have potential to become systemwide research programs. Similarly, there is a role for UCOP to act, in partnership with the state, in managing legislatively-mandated research programs on behalf of California.

Building on the discussions and lessons learned while conducting the portfolio review, the PRG developed the following observations to be considered in the continued oversight of existing systemwide research programs and when responding to new systemwide research opportunities. These observations do not constitute formal recommendations; instead, they are intended to help inform future decisions concerning the systemwide research portfolio.

Observations on the Value of a Systemwide Research Portfolio

There is value to having a systemwide research portfolio to support large-scale initiatives and infrastructure and to capitalize on opportunities in ways that are not possible when individual campuses act alone. To most effectively provide value to the system, the response to these opportunities needs to have these characteristics and capabilities:

Respond to Big Opportunities – There are research challenges that require large, transformative research to make progress. For a subset of these challenges, a collaborative approach involving multiple campuses will be most effective. For example, each UC campus has a method for identifying emerging grand challenges and a plan for addressing those challenges that overlap with the campus' technical expertise. Where several campuses have

¹ University of California, Office of the President. *The Task Force on University-wide Research Principles, Process and Assessment*. Oakland, CA. June 2012. http://ucop.edu/research-graduate-studies/files/research/documents/ppa_report.pdf

² University of California, Office of the President. *Interim Report of the Portfolio Review Group: 2012-2013 University of California Systemwide Research Portfolio Alignment Assessment*. Oakland, CA. June 13, 2013. <http://ucop.edu/research-graduate-studies/files/research/documents/prg-2013-interim-report.pdf>

³ University of California, Office of the President. *Report of the Portfolio Review Group: 2012-2013 University of California Systemwide Research Portfolio: Cycle 1 Programs Findings and Recommendations*. Oakland, CA. January 2014. http://ucop.edu/research-graduate-studies/files/research/documents/prg_cycle1_final_report.pdf

⁴ University of California, Office of the President. *Report of the Portfolio Review Group: 2012-2013 University of California Systemwide Research Portfolio: Cycle 2 Programs Findings and Recommendations*. Oakland, CA. February 2014. http://ucop.edu/research-graduate-studies/files/research/documents/prg_cycle2_final_report.pdf

identified a common challenge, it may be appropriate to fund systemwide research projects in these areas to take advantage of complementary expertise at multiple campuses.

Flexibility – Emerging research opportunities and challenges could rise to the level of a systemwide research program in different ways: from faculty initiatives, campus collaborations, the highest levels of University leadership, or anywhere in between. There should be flexibility in the systemwide research portfolio to support and foster multiple modes of initiative and innovation.

Rapid Response – Unique research opportunities often present themselves in a short time horizon. Excessively long review cycles or extended periods between points of entry for systemwide funding are not compatible with evolving research opportunities. The systemwide research portfolio should be able to rapidly respond to foster and review new opportunities as they arise.

Key Characteristics of New or Continuing Systemwide Research Programs

University-wide Principles – The university-wide funding principles, developed earlier by the Task Force on University-wide Research Principles, Process and Assessment¹ coupled with the considerations developed by the PRG, provide an appropriate lens for evaluating systemwide research programs within the context of the systemwide research portfolio.

Principle 1: The System is Enhanced – By acting as a system of multiple campuses, UC's research capacity, influence and advantage are enhanced: major research support from external entities is leveraged in a way not possible by single campuses acting alone and faculty and students are given access to facilities, resources, and opportunities not achievable when campuses act alone.

Principle 2a: Efficiencies of Scale are Realized – By acting as a system of multiple campuses, efficiencies of scale and operation are achieved beyond that achievable on a single campus.

Principle 2b: Systemwide Collaboration is Fostered – By acting as a system of multiple campuses, UC benefits from collaboration and engagement beyond those present on a single campus.

Principle 3: The University and the State Mutually Benefit – By acting as a system of multiple campuses, Californians benefit through the impact of research in a way not possible when campuses act individually.

Observations on Funding Systemwide Research Programs

Systemwide Funding – Funds invested in the systemwide research portfolio are derived from several sources, with the largest components derived from: the UCOP endowment; campus assessments; general and restricted allocations from the state; and external parties. Systemwide funds can be either unrestricted or restricted. Unrestricted funds are generally deployed at the discretion of UCOP, while restricted funds are deployed for a specific purpose or for a program with specific objectives. Wherever practical, the following guidelines should be considered when reaching decisions regarding the use of systemwide funds.

Competitive Funding – Funding systemwide research programs through a periodic, competitive, peer-review process helps remove political bias from funding decisions, helps ensure that only the best projects are funded, and, when the principles are used to guide

the review criteria, helps ensure that the research programs provide a systemwide value. Where possible and practical, research programs receiving systemwide funding should be awarded through a periodic, competitive, peer-review process.

Matching and Collaborative Funding – Where practical, systemwide research programs should be supported by multiple partners and not solely by systemwide funds.

Seed and Startup Funding – Except for rare instances involving infrastructure or strategic funding, systemwide research funds should be treated as temporary, seed funds. Quasi-permanent support (funding entitlement) of systemwide research programs should generally be avoided.

Infrastructure Funding – In rare cases, systemwide funds should be used to provide longer-term support for significant infrastructure investments that benefit researchers throughout the system. Such longer-term systemwide investments should be routinely vetted against the University-wide principles to ensure that systemwide benefits are, and continue to be, realized.

Strategic Funding – There may be systemwide research programs of strategic-importance that would provide UC an unparalleled advantage and could not exist without longer-term systemwide funding; such as, operation of unique facilities or unique investments in areas of enquiry with limited external resources. For these rare cases, it may be appropriate to provide longer-term systemwide funds to protect these strategically-important systemwide research programs. Strategically-important systemwide research programs should be critically evaluated against the University-wide principles to ensure that systemwide benefits are, and continue to be, realized and that external and matching funding options are appropriately leveraged.

Observations on UCOP Oversight of the Systemwide Research Portfolio

Academic Review – The scientific caliber of specific research programs should be evaluated according to established practices for conducting scientific program reviews. The academic review is one of several inputs for the continuing process of research portfolio review.

Program Administration – Wherever possible, systemwide research programs should avoid research management and administration structures with duplicative functions across campuses and/or between campus and the Office of the President.

Systemwide Guidance for Potential Emerging Programs – Depending on the context surrounding a potential new systemwide research program, a group with an appropriate cross-campus representation should be convened to review and help guide the development of the nascent systemwide program. In lieu of separate group, broad consultation with the Council of Vice Chancellors of Research and the systemwide University Committee on Research Policy may provide the necessary campus—administration and faculty—input on the systemwide value new research programs may

Portfolio Review Group – An *ad hoc* committee jointly comprised of campus administrators and faculty is an appropriate body for periodically assessing the systemwide research portfolio. This body should include, but not be limited to, Vice Chancellors for Research, Vice Chancellors for Planning and Budget, Deans, current University-wide Academic Senate chairs and committee members, and other faculty members as appropriate.