COMMITTEE ON RESEARCH (COR)
ANNUAL REPORT
AY 2014-2015

To the Merced Division of the Academic Senate:

The Committee on Research (COR) held a total of 16 regularly scheduled in-person meetings in order to conduct business with respect to its duties as outlined in UC Merced's Senate Bylaw II.III.7. Some additional business was completed via electronic mail discussions.

Annual Goals and Areas of Focus

In the first meeting of fall semester, COR members outlined seven overarching goals for the committee to pursue throughout the academic year. They also identified committee members who would play leadership roles for each of these issues. The seven general goals were:

1) *Improve and administer the Academic Senate annual faculty research grants program.* Of the responsibilities of COR, administering the faculty research grants program has historically required the most attention and labor, and this task is seen as an important contribution of the committee. The committee devoted a portion of each meeting, this year, to discussing ways to improve the program and the processes leading to the competitive assignment of awards. COR had previously submitted two memos to Division Council clearly stating the need for an increase in funding from the Provost/EVC for this program, as funding had not increased commensurate with the growth in faculty numbers. In recent years, many meritorious proposals had not been funded due to the low levels of available funding. In the absence of additional funds from the Provost/EVC, COR worked to reevaluate the criteria used to evaluate grant proposals, focusing on (i) the criteria that would allow the program to have the maximum impact on campus research productivity, (ii) improving consistency and fairness in the proposal assessment process, and (iii) managing the large labor load, both on the part of the committee members and also on faculty members recruited to conduct ad hoc reviews, of the evaluation process.

2) *Prepare for the formal review of campus research units.* Since the Senate approved the policies drafted by the AY 2013-2014 COR membership on the establishment and review of research units, COR focused on beginning the implementation of those policies during AY 2014-2015. The Sierra Nevada Research Institute (SNRI) was scheduled for a five-year review, and COR planned to collaborate with ex-officio committee member Vice Chancellor for Research and Economic Development (VCORED) Sam Traina to launch this endeavor and evaluate SNRI's research contribution to the campus. While the review process was clarified by early planning, the actual review of SNRI was postponed until AY 2015-2016.

3) *Advocate for a robust indirect cost return policy for extramural funding and monitor the efforts of the administration to implement such a policy.* COR identified its role as that of imparting to the administration the importance of faculty bridge funding, as well as consistency and transparency in any indirect cost return policy. COR also made plans to work with the administration to clearly communicate to the campus faculty any and all changes to indirect cost return processes.

4) *Monitor laboratory safety policy issues.* The move of faculty research laboratories from the Science & Engineering 1 building to the Science & Engineering 2 building introduced new issues concerning the need to ensure both the safety and efficient functionality of campus laboratories. These issues are varied and complex, and it is expected that they will persist for at least the next few years. VCORED Traina co-chairs a campus research safety committee with faculty representation, and COR continued to monitor and advise on associated safety issues.

5) *Provide advice concerning a new grants management system and campus responses to associated federal research guidelines.* COR planned to assist the VCORED, Research and Development Services (RDS), and the Sponsored Projects Office (SPO) by providing guidance on a new system for lifecycle grants management before its scheduled deployment in 2015. The COR membership was in a good position to comment on training materials and other components of the new system.

6) *Monitor research space allocation decisions and decision-making procedures.* COR planned to work with other Senate committees, including CAPRA, in order to advise the administration on space issues as they affect the campus research mission. Various

space committees have been convened over time, but COR recognized a pressing need for more faculty representation on these committees.

7) *Provide guidance concerning limited submission grant proposals.* Decisions concerning the selection of extramural funding proposals in cases where only a limited number of proposals are allowed from each campus have been mostly handled by School level decision-making bodies and rapidly convened ad hoc committees at the campus level. COR intended to offer recommendations on the review process, focusing on the need for consistency and transparency.

While COR conducted regular Senate business throughout the year, these seven issues served to guide the direction of much of the committee's work.

Annual Academic Senate Faculty Research and Travel Grants

A Case for Increased Funding
COR conducted lengthy discussions on the impact of static funding for the faculty research grants program on the committee's ability to allocate awards in a manner that optimally supports the research goals of the campus. In order to build a compelling case to the Provost/EVC for increased funding, COR conducted a survey of faculty research grant awardees from the past five years, asking faculty members to describe how their awards impacted their research in terms of publications, research presentations, related competitive grant awards, students supported, and new collaborations formed. COR summarized the results of this survey and submitted a memo to the Provost/EVC in spring 2015, requesting that funding for this program track growth in faculty numbers.

The poll revealed that, from the 35 responses received, these awards have led to at least 20 extramural grants, 54 publications, 46 presentations, support for 23 graduate students, and the creation of 16 new collaborations. As one of the only internal competitive research awards on campus, COR asserted that this grants program needed to be bolstered to support interim and bridge funding, maintenance of research capabilities, the initiation of collaborative and interdisciplinary work, the support of fields lacking sources of extramural funding, and a sense that the administration is committed to expand research activities on the campus as it grows. COR asked the Provost/EVC to consider increasing funding to a per capita level equal to that at the

time of the program's inception (i.e., $1,000 per Senate faculty member), or $159,000, as well as committing to the maintenance of this funding level as the campus grows.

Revised Process for the Evaluation of Proposals

In addition to being underfunded, the faculty research grants program has consistently suffered from problems with the proposal evaluation process. These problems generally have involved the labor needed to review proposals, both in terms of quantity and in terms of qualifications. Recruiting campus faculty to volunteer their time to evaluate proposals has been met with an abundance of polite refusals, and the relatively small size of the campus has introduced a large number of conflict-of-interest situations, restricting the potential pool of reviewers further. Past efforts to shift the bulk of the evaluation workload to the COR membership has produced an unmanageable labor burden, and this approach has greatly limited the expertise brought to bear on the proposal assessment process. The AY 2014-2015 COR membership deliberated extensively on these problems, searching for evaluation methods that might improve on those used during previous years.

COR made two major modifications to the proposal assessment process. First, it introduced a standardized cover sheet for proposals, motivated by a desire to ensure that all proposals provided a common array of basic information. Second, in an effort to introduce more relevant expertise into the evaluation process, COR required each proposal to identify an originating School, and faculty Executive Committees of the Schools were asked to formulate strategies for rating their subset of the proposals, leveraging the expertise of their faculty as much as possible. Given the quality ratings provided by the Schools, COR would merge proposal rankings based only on general and fairly objective criteria, reflecting the goals of the funding program, such as faculty juniority, time since last award, availability of alternative funds, and the presentation of explicit and detailed plans for the pursuit of further extramural funding. The idea was to "outsource" quality assessment to the expertise found in the Schools and to make any remaining criteria clear and transparent.

A call for proposals, providing extensive information concerning the new procedures, was delivered to all Senate faculty members in March 2015. At its May 6 meeting, COR members conducted their final deliberations, and selected awardees were notified shortly thereafter.

While informal positive feedback was received from the faculty concerning the procedural changes that were made to the evaluation process, two major concerns were raised and communicated to COR.

First, the fact that COR members were allowed to participate in the program as proposal authors was seen as problematic. It is worth noting that this aspect of the process was unchanged from previous years. Furthermore, COR deliberations included a number of mechanisms to protect the ranking process from conflicts of interest. COR members were certainly not allowed to rate properties of proposals (e.g., the degree to which a plan to obtain extramural funding appeared in a proposal) or comment on proposals in any way whenever there was a conflict of interest, which included both authorship and close collaboration with authors. Also, proposal authors on COR were not allowed to see the property ratings provided by other committee members, reducing the risk of introducing some form of implicit collusion bias. In the end, very few proposals were discussed by the COR membership directly, with almost all deliberation focusing on the appropriate weighting of previously established criteria.

The second problem involved the unintended result of producing a proposal ranking that left humanities proposals without funding. The COR membership had recognized the desirability of using this funding program to support research in fields for which there are limited opportunities for extramural funding. Rather than explicitly identifying those fields, however, the COR membership opted to directly evaluate the degree to which a proposal made a case that extramural funding was unavailable for the proposed project. When combined with other criteria, this raised the ranking of both humanities proposals and some of the social science proposals, but, in the end, the humanities proposals still fell below the threshold introduced by the small size of the program fund. Based on this experience, there is reason to suspect that the goal of using this program to support humanities research will only be met by segregating humanities proposals from others, introducing separate evaluation criteria and, perhaps, pre-allocating a proportion of the program funds to supporting research of this kind.

Finally, it is worth noting that some faculty expressed the opinion that the expertise of School faculty was still insufficiently specific to consistently evaluate the quality of proposals. Given that COR has neither the financial resources nor the labor resources needed to recruit ad hoc reviewers in specific research areas from off campus, and given

that such reviews would still leave the problem of comparing proposals from disparate research areas during the final ranking process, these comments suggest that efforts to produce reliable proposal quality estimates may be futile. In the future, COR may need to choose between a process that is clearly fair and a process that continues to heavily weight some measure of proposal quality.

Indirect Cost Return

During AY 2013-2104, COR drafted a proposed indirect cost return model and submitted it to Vice Chancellor for Business & Administrative Services Michael Reese and Vice Chancellor for Planning & Budget Dan Feitelberg. Both VCs attended a COR meeting at which COR members stressed the faculty's critical need for discretionary research funds, such that the implementation of a considered plan to reallocate unused faculty start-up funds to non-research related purposes would greatly hinder the research mission of the campus unless an equivalent amount of money was cycled back into the campus research enterprise. It was explained that many faculty members keep their start-up funds unspent for an extended period of time due to the lack of other sources of laboratory/unit/departmental unrestricted funding. Moreover, while the Senate continues to maintain its annual faculty research grants program, the amount of funding allocated to this program by the Provost/EVC has not risen in proportion to the growth in faculty numbers. Another meeting was held in August 2014 with COR members, VC Reese and Feitelberg, VCORED Traina, incoming Controller Michael Riley, and incoming AVC for Finance Donna Jones.

Due to scheduling difficulties, the first meeting of the AY 2014-2015 COR membership with representatives of the administration on this topic was held in March 2015. At that time, COR met with VC Reese, AVC Jones, and Director of Accounting Services Kimberly Groesbeck. COR emphasized the faculty's concern about start-up funds, given the lack of departmental or other bridge funding available for emergency expenditures. VC Reese announced that an indirect cost return proposal had been presented to the Chancellor for her approval. If approved, the model would be implemented on July 1, 2015. The proposed model would stipulate 5% of indirect costs to be returned to faculty member PIs and Co-PIs, but only on grants that pay full indirect costs. This return would occur in arrears, and the policy would be implemented by the Office of Research and Economic Development. Another 5% would be allocated to the School Deans.

COR members provided the following suggestions with regard to the proposed model: 1) language should be added in the proposal clarifying that the funds allocated to the Deans are to be set aside for faculty research purposes; 2) the proposal should specify that the 5% for Deans should be used to benefit the research group of the PIs and Co-PIs, in preference to other faculty members in the School; 3) there should be greater decentralization of control over the funds, perhaps by distributing them to the graduate group and bylaw 55 unit chairs, and 4) funds should be allocated to the ORUs, when appropriate.

New Grants Management System

RDS Director Susan Carter and her staff were guests at a COR meeting this year to present information concerning a new electronic grants management system. A draft timeline for the grant submission process, meant to act as a guide for faculty, was also presented to COR and feedback was requested. The two-part management system is intended to provide a more efficient process for faculty members and to generate internal data for reporting to UCOP. RDS piloted the system with the School of Natural Sciences in early spring 2015. While COR ultimately decided to postpone providing detailed feedback on the system until later in 2015, when the pilot period concluded and the faculty could be polled, the committee nonetheless appreciated the RDS consultation

Creation of Library and Scholarly Communication Committee

During AY 2013-2014, the Senate-Administrative Library Working Group recommended the creation of a standing Senate committee on library and scholarly communication. The monitoring of library issues was one of COR's charges, but it became increasingly clear that this responsibility was poorly situated, as supporting research activities is only one part of the library's mission. COR held that issues involving both undergraduate and graduate education, as well as the intelligent allocation of limited campus resources (including space), should also influence the guidance provided by the Senate to the administration concerning the campus library.

In fall 2014, COR urged Division Council to approve the empaneling of a standing Senate committee on library and scholarly communication. The request had the widespread support of other Senate committees. At Division Council's request, COR

drafted proposed bylaws for the committee and proposed membership that draws on expertise from existing standing committees, allowing input from the perspective of resource allocation (CAPRA), support for research (COR), support for graduate education (GC), and support for undergraduate education (UGC).

In spring 2015, Division Council approved the creation of the standing Senate Committee on Library and Scholarly Communication (LASC). As this would require a revision of the UC Merced Bylaws, this item was included for discussion on the agenda for the spring Meeting of the Division and presented by the Chair of the Senate Committee on Rules & Elections (CRE). Following the Meeting of the Division, the campus faculty approved the revised Bylaws and the creation of LASC via electronic vote. The new committee will convene in AY 2015-2016.

Consultation and Monitoring

Consultation with VCORED
Throughout the academic year, COR members benefited from updates on various research-related issues from VCORED Traina, an ex-officio committee member. Major topics of consultation between COR and the VCORED included clarifying the campus limited submission process, issues about laboratory safety, and the establishment and review of ORUs. The VCORED also provided updates to COR throughout the year on discussion topics at the Council of Vice Chancellors.

Consultation with Assistant Vice Chancellor for Research and Economic Development
The Office of Research was restructured to include a new division entitled the Office of Business Development. This new office is led by AVC Peter Shuerman, who, at the invitation of the committee, attended a COR meeting to provide an overview of his office's services. AVC Shuerman's staff works on projects related to start-up companies and is introducing a development element by seeking partnerships, shared opportunities, and strategies for obtaining return on investment. The campus has acquired office space downtown to begin building teams in support of these business partnerships. Both AVC Shuerman and VCORED Traina reiterated the importance of partnerships and pointed out that the support for faculty research and the exploration of inventions could be had through careful integration with a business model.

Vice Chair Updates on PROC

COR benefited from updates from its Vice Chair who, by virtue of this position, serves on the Program Review Oversight Committee (PROC). The Vice Chair reported the following major items of discussion in PROC: the VCORED's procedures on the review of ORUs and the need for a standardized review process across campus.

Provost/EVC's Proposed Six-Year Ladder-Rank Faculty Hiring Plan

The Provost/EVC's Strategic Academic Focusing (SAF) process, begun in AY 2013-2014, resulted in the Provost/EVC identifying five strategic areas ("pillars") that would receive resources and faculty FTE lines. In spring 2015, the Provost/EVC issued his six-year ladder-rank faculty hiring plan to the campus. Many faculty members expressed their concern to Senate committees over the future growth of traditional disciplinary ("foundational") areas. As this plan was discussed across campus over time, COR repeatedly returned to this topic in order to assess the implications of the evolving plan for the campus research mission.

Campus Review Items

- MAPP. As per policy, in the spring semester the Academic Personnel office, in conjunction with the Provost/EVC, submitted a set of proposed revisions to the *UC Merced Academic Personnel Policies and Procedures* (MAPP) document. This year's proposed revisions largely pertained to the L(P)SOE titles.
- Campus Climate Action Plan. COR reviewed the campus climate action plan drafted by the Chancellor's office in response to the March 2014 campus climate survey. COR requested that the plan include pointed action items focused on improving research support and infrastructure, as the lack thereof is one of the main reasons for faculty attrition. COR also suggested that the plan indicate the individuals or organizations who will be responsible for implementing the proposed actions.
- CAPRA's Space Principles Document. CAPRA drafted a statement of space principles for Senate committee review and campus distribution. COR agreed with the principles but suggested that space for visiting scholars and research academic visitors should also be planned at an appropriate ratio.
- Split of FWDAF into Two Committees: 1) Faculty Welfare and Academic Freedom and 2) Diversity and Equity. COR endorsed the proposed split.

- Project 2020. COR, along with other standing Senate committees, heard updates and provided input on Project 2020 issues, including allocations of assignable square feet for research space.
- PhD Program Proposals.
    - Economics. COR endorsed the proposal but had several concerns, including the proposal's projected growth rate of faculty and graduate students, whether proposed interdisciplinary research and coursework for graduate students is viable, library resources, demand for the program, and issues surrounding the proposed curriculum. In spring 2015, COR reviewed the revised proposal, noted the inclusion of the previously requested changes, and offered its endorsement pending one minor revision.
    - Mechanical Engineering. COR reviewed the proposal in the last academic year and had numerous concerns, including growth in faculty numbers, the roles of core versus associated faculty, and how the program intends to become one of the core research areas on campus. In summer 2015, COR was given the opportunity to review the revised proposal and offered no further comments.
    - Management of Innovation, Sustainability, and Technology. COR endorsed the proposal but had several concerns, including the location of the proposed FTE lines, student demand for the program and career opportunities, and the availability of teaching assistantships and potential availability of extramural funding for graduate support.
    - Public Health. COR endorsed the proposal but had several concerns, including the current funding situation of participating faculty (needed to assess the probability that available resources will grow commensurate with graduate student enrollment), support for additional FTE lines, specifying the research facilities necessary for the program, and student demand and career opportunities.
- Revised Proposal for a SSHA Minor in Community Research and Service. While COR asserted that this minor would be beneficial to students, the committee echoed UGC's concerns about faculty teaching credit and resources. While the revised proposal intended to address these concerns, COR was not convinced that issues concerning sustainability with regard to resources were resolved by

this modified proposal. COR pointed out that the revised proposal's plan to offer unrestricted faculty research support stipends to faculty who deliver relevant community-based research experiences may be in violation of APM 662-16, if those stipends may be taken as additional compensation.

- Proposal for a SSHA Major in Global Arts Studies Program (GASP). COR deemed the research implications to be acceptable and, therefore, had no comments.

- Proposed Pilot Program for Undergraduate Chairs in SNS and SSHA. COR deemed the research implications to be acceptable and, therefore, had no comments.

- Proposal to Establish a Public Health Bylaw 55 Unit in SSHA. COR endorsed the proposal but requested the following revisions: 1) the proposal would benefit from including letters of support from Deans and representatives of graduate groups, indicating that SSHA is an appropriate home for this program and 2) the proposal should remove the language that states that the unit will manage a graduate degree program, as this is not in the standard purview of a Bylaw 55 Unit at UCM.

- Provost/EVC's Proposed Procedures for the Establishment of Centers. COR was concerned that the document did not recognize that the Senate had previously approved policies, created in conjunction with administrative consultation, that specify procedures for the establishment and review of Centralized Research Units (CRUs), which appear to be essentially identical to the Centers described in the document under review. COR requested that the Provost/EVC frame his document as proposed revisions to these previously approved policies, so the Senate and Administration can establish one unified policy for research groups of this kind.

- VCORED's ORU Review Policy. The VCORED expanded on the set of comprehensive policies concerning the establishment and review of research units. The general policies were drafted and approved during AY 2013-2014, but the VCORED's document provided additional procedural details. COR endorsed the VCORED's policy, finding that it aligns with the Senate's established policies on the topic.

- SPO Director Search. VCORED asked for COR's participation in the search to replace the retiring SPO Director in 2015. COR was also asked for general input concerning potential future directions for SPO.
- COR formed subcommittees to review nominations and select winners for the two Senate awards under the Committee's purview: Distinction in Research (tenured) and Distinguished Early Career (untenured) Research.
- Two members of COR served on the Hellman Awards review committee, chaired by the Provost/EVC.

Systemwide Review Items

- APM Revisions. COR opined on several proposed revisions to various sections of the APM, as requested by systemwide and Division Council.
- Systemwide Senate Bylaws. COR reviewed two proposed revisions to the Senate Bylaws, one pertaining to the expanded role of the University Committee on International Education and the other focusing on making the vice chairs of all standing systemwide committees be at-large members.
- Copyright and Fair Use Policy. COR found that the proposed revisions did not indicate who is responsible for the contents of the web site contained in the policy, and it recommended that the procedures, or at least guidelines for procedures, should appear in the policy document rather that solely on the website.
- Proposals for Doctoral Student Support. COR recognized that the establishment of mechanisms that remove (or, at least, reduce) the cost of non-resident supplemental tuition (NRST) to extramural grants would generally make the cost of having an international graduate student much lower. This could have a substantial impact on the research productivity of faculty members by saving them substantial funds, and those funds could be allocated to cover other costs. However, waiving NRST only for internally funded students would produce a disincentive to fund international students on extramural grants. COR, therefore, recommended the adoption of a unified and equitable policy for all doctoral students.
- Guidelines on Accepting and Managing Equity in Return for Access to University Facilities and/or Services. COR pointed out that the document failed to indicate the responsible party for determining whether a given business

affiliation advances the UC's educational objectives. There was also no indication of which individual or body would adjudicate any conflict of interest. Finally, COR noted that the proposed policy does not provide for Senate oversight and, so, recommended that an annual report be submitted to the Senate each year.

- Proposal for Open Access for Non-Senate Members. COR endorsed the proposal.
- University Committee on Research Policy (UCORP) Updates. UCORP discussed the following major issues this academic year: funding for the multi-campus research programs and initiatives based on recommendations from the Portfolio Review Group, UC President Napolitano's formation of an Innovation Council, multi-million dollar investment into an initiative to commercialize UC research products, state budget negotiations between the Governor and President Napolitano, funding challenges for the UC Natural Reserve System, the UC Lab Fees Research Program, the future of the UC Division of Agriculture and Natural Resources, and general issues surrounding technology transfer.
- University Committee on Library and Scholarly Communications (UCOLASC) Updates. UCOLASC discussed the following major issues this academic year: the open access policy and the UC Copyright and Fair Use Policy.

Respectfully submitted:

COR members:
David C. Noelle, Chair (SSHA) – UCORP representative
Deborah Wiebe, Vice Chair (SSHA) – UCOLASC representative
YangQuan Chen (SOE)
Jason Hein (SNS)
Masashi Kitazawa (SNS)

Ex officio, non-voting members:
Sam Traina, Vice Chancellor for Research and Economic Development

Staff:
Simrin Takhar