

RESEARCH STRATEGIC PLAN

Submitted by

The Research Strategic Planning Task Force

Executive Summary

The Research Strategic Planning (RSP) Task Force was constituted by then Provost Royce Engstrom and Research VP Dan Dwyer in April 2010 to provide a comprehensive assessment of research and creative scholarship on the UM campus. The goal was to create a comprehensive plan to strengthen research and creative scholarship.

Following a thorough and extensive solicitation of campus input over many months from a very broad cross-section of stakeholders (see Appendix 1), the Task Force's key findings are summarized in four key themes.

First, communication both with internal stakeholders and external constituents must be improved. Faculty and administrators alike consistently stated that the University neither promotes its research mission nor its impressive research accomplishments effectively. This lack of communication hampers UM's effectiveness and limits its potential, both in terms of funding from the State as well as goodwill in the community regarding the value of research and creative scholarship. Second, the RSP Task Force was surprised at the extent of disparity in research support both across units on campus as well as between UM and MSU. Despite its status as an American Carnegie High Research Activity University, UM has many units with literally no funding for research, no graduate students, no travel funds, no IT support, no work space, and very heavy teaching loads. It is not an overstatement to characterize this situation as exceedingly bleak and demoralizing. Third, despite its own efforts to do a credible job, the Office of the Vice President for Research (OVPR) and the Office of Research and Sponsored Programs (ORSP) is a source of frustration; the Office was identified as a hindrance in pursuing vibrant research programs by many active researchers (with many specific details and examples provided in our report), even while many research centers praised the ad hoc and flexible structure in creating side-deals that benefited them. Fourth, the structure and management (values and beliefs) of the University itself was identified as needing significant changes in order to foster a culture of research and scholarship. For example, the imbalance in teaching expectations and research productivity was consistently cited as a barrier to enhancing scholarship by many units; problems in infrastructure, lack of funding, lack of coordination, inefficiencies, etc. were all cited as barriers to achieving excellence in research across many units. Even those researchers who are best supported and most accomplished felt that, relative to peer institutions, they were not adequately supported.

The findings summarized in these four themes in turn lead to many specific recommendations detailed in our report. Because research and creative scholarship are complex, multi-layered, and highly interdependent, our recommendations are categorized according to the key individuals and offices who are vested with primary responsibility for implementation. Specific recommendations are made for the President, including assuring dynamic and visionary leadership in the Office for Research; improving fundraising and budget allocations to support faculty research, and enhancing accountability for communications both internally and externally. Recommendations for the Provost include identifying areas of excellence to help distinguish the institution; promoting a culture of research among faculty by rectifying disparities in teaching loads and improving support for traditionally under-funded areas, improving collaboration across multiple units on campus including the VP for Research, the Faculty Development Office, and Graduate Studies. Recommendations for the VP for Research include systematically evaluating all personnel and functions in the office in order to enhance service to faculty across all phases of the research process (pre-award, post-award, post-grant, IRB review, to name a few), implementing centralized and coherent management of core research facilities and the Technology Transfer Office, and improving communication and outreach.

Specific recommendations are also offered to the Associate Provost and Dean of Graduate Studies, Academic Deans, the UM Foundation, University Relations, and the Faculty in general.

The RSP Task Force is optimistic about the opportunities to enhance research and creative scholarship at UM. Moreover, the RSP Task Force recognizes that these recommendations require financial commitments from several campus offices (including the President and the Provost, to name just two). To believe that research and creative scholarship can be enhanced without a commensurate financial commitment is unrealistic, given the findings we report about the barriers to such enhancement. At the same time, we believe that there are three specific pools of funding that are available to support the recommendations we have made.

First, we believe that our recommendations will enhance UM's ability to secure funding from the Montana State Legislature. For example, improved communication as well as enhanced outreach must credibly convey the value of research and investing in research activities. Second, we believe that our recommendations will allow the UM Foundation to secure additional funding through specific opportunities to support focused research and creative scholarship. Third, some portion of the indirect costs (IDCs) that are assessed on funded research--IDCs that currently go into General Funds-- must be re-directed to research and creative scholarship specifically.

These investments in enhanced research and creative scholarship will create a virtuous cycle, in that additional investment will garner additional research dollars, which in turn will generate additional IDCs that can, in turn, be used to support additional research and creative scholarship on campus. The fact is, research is an investment that enhances the intellectual vitality, the economic viability, and the teaching mission of our University. Following the notion that "a rising tide floats all boats," enhancing the level of research support across all units on campus will be to the benefit of all.

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Research – like teaching – is an essential element of the academic mission of any University. Indeed, when research and teaching are closely combined, universities are at their creative and vibrant best.

I. Introduction

History and Charge

It is thus not surprising that among the first three initiatives singled out for special attention in The University of Montana's 2009 comprehensive Academic Strategic Plan, the first two focused on teaching and the third on research. The plan called for the creation of a committee charged with providing a thorough exploration and assessment of research and creative scholarship at the University, addressing such matters as a vision for the future, the infrastructure and support necessary to foster research and creative scholarship across campus ranging from the natural sciences and social sciences to the arts and humanities, the transforming of discovery into application, and the nurturing of interdisciplinary collaboration and research and scholarship opportunities.

This Task Force was created in April 2010 by then Provost and Vice President for Academic Affairs Royce Engstrom and Vice President for Research Daniel Dwyer. Task Force membership included:

Bruce Bowler, Professor, Department of Chemistry and Biochemistry
 Elizabeth Dove, Associate Professor, School of Art
 Christine Fiore, Professor, Department of Psychology
 David Forbes, Dean, College of Health Professions and Biomedical Sciences, Co-Chair
 Ashby Kinch, Associate Professor, Department of English
 Paul Lauren, Regents Professor, Department of History, Co-Chair
 Jakki Mohr, Regents Professor, School of Business Administration
 Richard van den Pol, Director, Institute for Educational Research and Service
 Jenny Wilson, staff

Context

This charge from the Academic Strategic Plan comes at a time and within a context that presents both challenges and opportunities. These can be seen in the form of rising expectations, greater competition for external grants, the possible decline in state funding, the expectations and demands placed on UM by being designated as a American Carnegie High Research Activity University, the increase of research and creative scholarship among our faculty over the last generation, the growing interests and energies of faculty members eager to increase the quality and the quantity of their research and creative scholarship in ways that enhance their teaching and enrich the learning experience of our students, contribute to new knowledge, advance science, create economic

opportunities, serve society, and enrich the lives of people. It is also a time of new leadership at The University of Montana.

Process and Sources of Information

The Task Force believed from the beginning that it was essential to create a deliberate, comprehensive, transparent, and inclusive process that actively involved administrators, faculty, and staff. We met with every administrator with responsibilities for research and creative scholarship in lengthy sessions, personally interviewed every academic dean, held many open town hall meetings with faculty across all sectors of campus, invited comments from the Faculty Senate, met with the major external grant recipients and the directors of research centers, interviewed the chairs of internally funded committees for faculty development and staff members with particular expertise in research activities, and encouraged those who could not attend sessions in person to send us their thoughts in writing. (See Appendix I for a complete list). In all of these efforts we encouraged candor and solicited comments about positive experiences, frustrations, suggestions, and visions for the future of research at The University of Montana.

The participants most certainly responded. During these many sessions we heard a great deal and learned much about what the University does and does not do to promote research. A summary is provided below in the section on Findings.

These Findings, in turn, lead us to address what The University of Montana should do to enhance research. These are provided below in the section on Recommendations.

II. Findings

Our extensive and wide-ranging discussions revealed that critical evaluation of research and creative scholarship is essential to the survival of the academic enterprise and society. Thus far, The University of Montana has primarily focused on the total dollar amount of extramural funding to measure the productivity of its faculty's research and creative scholarship efforts. This singular metric, however, is much too narrow and has limited applicability to describe the remarkable breadth, complexity, impact, and interdependence of research and creative scholarship across our campus. In addition, they revealed four key themes and areas of major concern that emerged consistently and resonated broadly: 1) Improve Communication about Research both Internally and Externally; 2) Address the Disparities in Research Support of Underfunded Areas; 3) Introduce Changes in the Office of the Vice President for Research and ORSP; and 4) Continue to Improve the Research Culture.

These findings must also be placed in the context of the significant success the University has achieved in growing its overall research profile: in the last 20 years, the University has grown from under \$7 million to nearly \$70 million in overall funded research, while at the same time enhancing, augmenting and polishing its reputation in the areas of the arts and humanities that cannot be measured in the same quantitative terms. Faculty, administrators, and staff who have been part of this institutional transformation have expressed a justifiable pride in the achievements, while nonetheless recognizing that the severe pressures placed on an American Carnegie High Research Activity University demand ongoing improvement and planning. The Task Force encountered faculty who were interested in the augmentation of UM's existing strengths, but we also found faculty who

insisted that UM's overall strength was founded on its identity as a comprehensive liberal arts institution: integrating research into all areas of the institution is vital to maintaining the link between our teaching and research missions, which is, in turn, vital to our public identity.

The four themes outlined below, then, represent areas in which institutional improvement must be made in order to continue to grow and evolve the University's research profile.

1) Improve Communication about Research both Internally and Externally

Faculty and administrators in almost every unit stressed that they are eager to be better informed about what their colleagues are working on, and find it difficult to access that information. While the interest in interdisciplinary research is strong across campus, a basic element that would support such an interest is missing: a database of ongoing research that would allow the campus community quickly and easily to access ongoing and completed projects and thus rapidly contact faculty in specific areas of expertise. Similarly, faculty and research programs identified the lack of venues (places and events) that promote conversation, and sharing of ideas and interests, which would enhance and support the development of collaborations and interdisciplinary efforts.

We also regularly heard the complaint that the University does not promote its research mission and accomplishments well to the public and particularly to the legislature. Many faculty lamented the lack of a public research presence in Helena, where UM's distinctive contribution to the State's quality of life needs to be stressed more vehemently, especially with respect to disparities in funding and support between UM and MSU. The public message about the importance of research to the larger mission of the University needs fuller and more comprehensive expression. The impression across diverse areas of research and creative scholarship on the Mountain campus and COT was that we fail to communicate among ourselves as much as we fail to communicate to the public the many meaningful and remarkable research and creative scholarship in progress. As a result, many stakeholders feel we hamper our effectiveness and limit our potential.

2) Address the Disparities in Research Support of Underfunded Areas

As the comprehensive liberal arts University of the Montana System, UM has a vital leadership role to play in research and creative scholarship in the arts, humanities, and professional schools, which are traditionally un- or underfunded enterprises. Aside from the salary disparities driven by market forces, faculty in the arts and humanities face major difficulties in pursuing their research including: higher teaching loads (3-3 and higher); insufficient infrastructure (work space for artists; library resources; IT support); little or no start-up funding; few or no opportunities for grant funding; little or no graduate student research support; and extremely limited, and extremely competitive, available travel funds. While these obstacles are intimately known by the arts, humanities, and professional faculty themselves, a surprising number of faculty in better-funded areas routinely expressed in our meetings shock and dismay when they heard the testimonials from these faculty in public meetings. For example, the cost of completing major book projects (copyright, image permissions, indexing, etc) was a major concern: a single-author monograph is the gold standard for research in the humanities, but the finishing costs (as much as \$3-4000) associated with these projects place major financial strain on the faculty member. Similarly, faculty in our studio art programs routinely invest thousands of dollars in their own supplies for ongoing projects. These costs create major disincentives to pursue the kind of ambitious projects that should be the hallmark of an excellent research University. There was a general sense among faculty across disciplines that maintaining the health and vigor of underfunded areas remains a priority and constitutes an important aspect of the University's identity and mission. Research in these areas is comparatively inexpensive, however, so that small

investments can reap substantial gains (see Recommendations for further detail). The investment in research in these areas has been variable, with funding for faculty development slipping in recent years (less than \$50k for Faculty Professional Enhancement Program (FPEP) grants and a fall from \$75K to \$59k for University Small Grants). No particular priority is given to insure adequate support for research in underfunded areas. (see Faculty Development Recommendations for further details)

Particularly in underfunded areas but not solely from them, the question of the role of the UM Foundation in seeking support for research and creative scholarship was mentioned often. Faculty wondered if it was time to extend the mission of the Foundation to include seeking support for University scholars and programs and whether this might not address some of the discrepancy in resources. In a similar vein, several found confusion in the role and mission of The UM Foundation in relationship to the Research Office, though it is clear from conversations that the Office of the Vice President for Research (OVPR) and Foundation are aware of the problem and seeking solutions.

3) Introduce Changes in the Office of the Vice President for Research and ORSP

Many who contributed to the discussions had years of experience to recognize and appreciate the massive demands and changes necessary in the Office of Research and Sponsored Programs (ORSP) and the Office of the Vice President for Research (OVPR). Significant staffing increases and IRB proposals review changes (staffing versus entirely volunteer) have certainly improved the capability of the office to respond and manage research activity, pre-award and post-award needs. In fact, the office has gone from 344 proposals in 1990, with 3 staff and a generation of \$7 million in expenditures, to 629 proposals with 5 staff and \$32 million in expenditures in 2000, to 726 proposals with 16 staff and \$67 million in expenditures in 2010. Despite the increases in staffing, the University community being served by this office issued a clear call for meaningful improvements in the management, functioning, and services provided by these offices. Many campus areas not currently served by the office also called for improved access to assistance and guidance in funding for research and creative scholarship.

While we argue that faculty productivity must not be assessed relative to simple metrics such as extramural dollar totals, the overall impact of grant funding on the University's budget and the economy of surrounding communities cannot be underestimated. For example, during one month in Autumn Semester 2010, a total of 483 (17.9%) of faculty and staff employees of the University were paid by grants. Among student workers, 231 (10.4%) were hired on grants in that same month.

Aside from limited access to funding opportunities, complaints about deficiencies in support also arose from stakeholders in funded areas, including: lack of development funds; lack of teaching buyouts for grant writing; no well-established set of priorities for allocating indirect costs (IDCs) in the research office, to investigators, research units, and departments; deficient or in-existent bridge monies between grants; and variable treatment of proposals reviewed by the Institutional Review Board, among other problems. Many felt that the University ineffectively and inconsistently manages research funds, responsibilities and support across colleges, departments, and research centers, indicating a lack of policy or plan. There is duplication in some functions, for example, where departments or colleges have staff also dedicated to budgets and budget monitoring but no management plan for core facilities.

The most common and consistent complaint across all information-gathering venues was that the office was primarily reactive and not facilitative. Stakeholders felt that the office created numerous and unpredictable barriers at both the pre and post award stages instead of opening doors, and was oriented much too strongly toward policing grants for audit or misuse of funds, as opposed to

assisting and contributing to promotion and growth of research and creative scholarship as well as providing incentives to enhance faculty activity. The faculty malaise with respect to the Research Office has substantial consequences, as some faculty have expressed to us that they will only pursue one grant at a time or they will direct grants through other universities in order to avoid contact with the office.

As a whole, the campus community felt the office needed more direct knowledge and provision of service for the entire grant process from seeking to writing to closing. This commitment to service beyond budget development, supervision and management must be driven by a clearer sense of vision for research and creative scholarship campuswide, with a shift in orientation consonant with this enlarged vision for the total research enterprise. Many faculty cited positive interactions and experiences with OVPR (helpful in budgeting, troubleshooting, and problem-solving), but many more felt that the offices failed in the area of leadership, and in the adoption of a culture of service and development that would enhance and support the perceived University research mission. Individual policy decisions—whether it be the allocation of IDCs or decisions about the University Small Grants Program allocation—need to be made with an eye toward the advancement of the larger mission of research at the University, and academic leaders bear the burden of emphasizing that mission in all units under their purview.

To their credit, ORSP is aware of many of the problems and perceptions of their work and are making efforts to address some of these (revising forms and methods of communication, establishing a research oversight committee, and core facility management plans). They feel limited by federal rules and guidelines. The office has little infrastructure support (no IT person, no plan for replacement of computers, staff training and advancement), and no strategic plan. The office has a stable staff, who work long hours, but are restricted to the classified staff categories that do not accurately represent their work duties (as opposed to professional appointment as at MSU). They look forward to a University-wide vision that will give them guidance.

4) Continue to Improve the Research Culture

The University of Montana has undergone major changes in the research culture of the institution, evolving from a liberal arts teaching college to Carnegie High Research Activity University in the last 20 years. The leadership and faculty have responded to those changes in various ways, from pursuing external funding with greater vigor to building new research and lab space, to shifting hiring priorities and raising Unit Standards to emphasize research. While these changes are evident across campus and have influenced the development of a stronger research culture, more work remains to be done to support the momentum and enhance the potential of the University.

- **Increase Investment**

In every venue, the Task Force encountered people who voiced the need to fully invest in what is required to establish a viable, sustainable, and productive faculty. The lack of such support was seen as a lack of commitment to the research mission on the part of the Administration, Board of Regents and Legislature. Faculty noted the poor funding of Faculty Development Grants, international and national travel, and infrastructure (space, equipment, supplies, and systems of support and development) as examples of a lack of sincere appreciation for the requirements of success in research.

The University research culture relies on the research infrastructure, ranging from the buildings that house our classrooms, labs, and libraries, to the information technology that facilitates our

communication and provides access to information, new ideas, and the highest-quality research from around the world. This extends to classroom space for training in specialty areas and it appears especially lacking in the Fine Arts where we have, as in other areas on campus, nationally and internationally renowned faculty.

Similarly, many faculty identified a continued struggle within the institution to recognize the imbalance in teaching expectations and research productivity. Many faculty also felt that advising loads were burdensome. Course loads University-wide do not consistently acknowledge size and discipline specific educational demands at the undergraduate and graduate levels, and their impact on the ability to fulfill the demands of research and creativity within varying disciplines. More specifically, faculty expressed frustration with time limitations and the requirements of performing at a true Carnegie high research activity level in research, or excelling at creative scholarship on the one hand, and addressing heavy teaching and service demands on the other.

Furthermore, investment in the culture of research extends to both undergraduate and graduate students. Many expressed relief and appreciation when graduate research and teaching assistantship tuition was approved at the in-state rate, but many also see this decision as merely the first step toward providing meaningful investment in graduate students. Sister institutions provide full support throughout pursuit of the degree. The University of Montana has masters' and doctoral programs with little to no support despite what comparable programs offer. To remain competitive and to attract the best and brightest, investment must include further expansion of support. Our faculty bring their research to the public in the form of innovative new technologies that benefit society, but the creativity and intellectual capital of our faculty also finds a crucial outlet in our students, who take the best ideas and the most compelling aesthetic forms with them into their lives as citizens of the state, the nation, and the world.

- **Provide Facilitation and Support**

A University research culture is a complex ecosystem, the most fundamental element of which is the individual faculty member, whose intellectual talent and ambition drive the research enterprise. Each individual faculty member, however, relies heavily on a range of relationships with other faculty, students, administrators, and staff. In terms of culture change, by far the most common finding across all areas and all levels of inquiry was a deep desire for the capacities of individual faculty and programs to be facilitated through education, communication, and collaboration. For example, the faculty and administrators of our professional schools (Business, Journalism, and Law) expressed a strong desire for collaboration in areas of common research interest, including environmental and climate studies and Native American culture. Journalism specifically felt it could contribute to improved communication by partnering in a way that benefited their students and provided science, humanities, and arts with a means of communication. The library hoped to be able to use communication technologies to support facilitation of connection and collaboration. Widespread interest existed for providing seed money to support and enhance current efforts by the Dean of the College of Arts and Sciences to create a Humanities Institute where humanists could partner with scientists in cross-disciplinary research and creative scholarship. COT faculty wanted to be included and considered in the advancement of the research mission through increased education in grant development, publication and outlets for their work. Some faculty felt that statistical consultation and access was needed and it was difficult to find information from the relevant on-campus experts, while other faculty called for support for ongoing education to keep abreast of developments in their fields.

The Faculty Development Office (FDO) could work to facilitate or be a center for all of these interests. The implementation of the FDO is a positive example of facilitation and support. Prior to its inception

this year, the University had gone without a complete commitment to the ongoing needs of faculty and many see it as holding great promise. However, this office has little funding, yet it holds a huge potential to coordinate and address education, communication and facilitation. In fact, the FDO can be a center for these important aspects of faculty research life with adequate staffing.

All of these issues are interconnected and they all point to the need to address facilitation and support of faculty promise. Furthermore, facilitation and support in these examples are not entirely dependent on funding but on creating an environment for exchange of information and connection.

- **Enhance Recognition and Incentives**

Culture change is clearly necessary if even those whose research is most accomplished and best funded themselves feel undervalued or unappreciated. Many individual faculty members expressed their concerns that the institution did not effectively support their research even when their output had met or exceeded expectations. While the needs for productive researchers may be different than those not currently able to meet their potential, effectively acknowledging and supporting success is also essential to maintaining the research enterprise.

Frustration was deep over ongoing inefficiencies that have created an atmosphere of futility and disincentive for many highly productive faculty, as an overall negative environment for research decreases motivation and morale. Regardless of the level of funding, faculty cited needless barriers, bureaucracy, and wasted time as frustrating to their goals and motivation. This included examples such as days spent on three-cent overdrafts, time cards, budget reallocations, IRB proposals, and contract agreements. The Institutional Review Board (IRB) process suffers from delays, inconsistencies, and idiosyncratic perceptions of protection of human subjects that create an atmosphere of futility and exasperation that was expressed by many faculty. For example, last summer a student proposal that had been approved by Stanford's IRB was not acted upon in time for the student to begin her research on time and required revisions of questionable added value to the protection of human subjects. Students in undergraduate classes sometimes are considered "human subjects" who must give informed consent, while in other semesters the same undergraduate course is considered not to involve research nor require IRB review. Negative implications of this way of operating result in faculty avoiding use of the IRB for class or reworking research in ways to avoid the IRB completely. Furthermore, streamlining, delegating, and the appropriate assignment of tasks was felt to be an afterthought and the lack thereof, disrespectful of the time, skills, and expertise of faculty. Every effort must be made to convert this cultural dysfunction into an opportunity for positive change.

The will to make substantial culture changes is strong, but the institutional leadership needs creatively to invent ways to incentivize the individual faculty member through enhancing and adjusting faculty development priorities, while continuing to work on institutional capacity to expand research.

- **Establish the Fundamental Priority of the Research Mission**

Research excellence should be the core of our institutional mission at all levels, and the institution must consider all its decisions within the framework of that perspective. The reciprocal responsibility of the individual faculty member who pursues her/his research and the academic leadership charged with enhancing that productivity is essential to creating a more positive sense of forward momentum for the institution and the individuals who comprise it. A central dilemma in academic leadership is the difficulty of seeking ways to balance the enhancement of excellence within existing programs while cultivating excellence in other areas that are essential to the mission of the University, but have not been recognized for their research excellence because they are underfunded or in areas that have

not been as active and productive in research. Faculty with large research grants expressed some resentment at the labor and difficulty of maintaining their high level of work, while highly productive faculty in less funded areas expressed their disenchantment with the institution's support of their acclaimed work. Culture change is synergistic but the Academic leadership of the institution must also prioritize and support the shift, and thus find ways to realize the currently untapped potential to enhance research productivity in areas that have not been directly involved in the past. Faculty regularly lamented, for example, that the UM Foundation did not prioritize fundraising in support of faculty research and creative scholarship and department or program potentials, and voiced a desire and willingness to meet with donors to discuss their research in pursuit of donations.

While changes in institutional culture are complex and sometimes difficult to make, one crucial finding from our conversations and deliberations is the widespread sense that research needs to be integrated more fundamentally into the institution's Mission, so that each and every member of the UM community—including undergraduate and graduate students, faculty, staff and administrators—play a direct role in contributing to this mission. A re-orientation such as this will require myriad individual and institutional decision-making processes to change in ways both subtle and dramatic, and many of the recommendations in the section to follow address these changes.

III: Recommendations

We are excited about the opportunities that currently exist to pursue the University's path toward excellence by addressing the issues raised by the Findings. The time is clearly ripe to take action.

Our discussions and analyses have revealed that research and creative scholarship is complex, multi-layered, and highly interdependent. As such, they are not the responsibility of a single person, office, or part of the University, but of many. The recommendations that follow thus are addressed to a variety of specific individuals, offices, entities, and groups bearing primary responsibility for implementation across the campus.

The RSP Task Force recognizes that some (but not all) of our recommendations require financial commitments from several campus offices. To believe that research and creative scholarship can be enhanced without a commensurate financial commitment is unrealistic, given the findings we report about the barriers to such enhancement. At the same time, we believe that there are three specific pools of funding that are available to support the recommendations we have made.

First, we believe that our recommendations will enhance UM's ability to secure funding from the Montana State Legislature. For example, improved communication as well as enhanced outreach must credibly convey the value of research and investment in research activities.

Second, we believe that our recommendations will allow the Office of the VP for Research and the UM Foundation to work together to secure increased external funding through specific opportunities to support focused research and creative scholarship.

Third, some portion of the IDCs that currently go into General Funds must be re-directed to – and thereby directly reinvested -- in research and creative scholarship specifically.

These investments in enhanced research and creative work will create a virtuous cycle, in that additional investment will garner additional research dollars, which in turn will generate additional

IDCs that can in turn then be used to support additional research and creative scholarship on campus.

President

The President plays an absolutely critical role in promoting research and creative scholarship at The University of Montana. He or she bears primary responsibility for hiring and evaluating the Provost and VP for Research, working with others in developing the budget, serving as the public face of the University, and securing funds. Our recommendations thus focus on personnel and leadership, budget and budget policies, communication, and fundraising.

1) Personnel and Leadership

- Ensure that the Provost and the VP for Research provide dynamic leadership for research and creative scholarship for the University as a whole.

2) Budget and Budget Policies

While mission and vision statements are important, budgets and policies are tangible manifestations of the priorities of an institution.

- It has been reported to the Task Force that UM has approximately 2000 resident students for which the state of Montana has not provided funding (i.e. unfunded students). We have also been informed that the Montana University System Board of Regents (MUS BOR) have discussed but not resolved this issue. We encourage President Engstrom to aggressively pursue this issue with the MUS BOR with the goal of achieving a funding model that provides support for all resident students. This issue is especially of interest to this Task Force because resources that could and should be used on this campus to support research and creative scholarship are being diverted to support the unfunded resident students.
- **We recommend that these monies be reinvested back into research and creative scholarship where they most appropriately belong. Additionally, we recommend establishing a fixed percentage of the reinvested resources be allocated for research and creative scholarship in traditionally underfunded areas, including direct support for faculty development and support for developing external grant proposals.**
 - A significant amount of resources are being transferred out of the Office of the VP for Research and used for purposes on campus other than supporting research and creative scholarship. Likewise, a significant amount of resources are being transferred from the academic unit's share of IDC's and again, used for purposes on campus other than supporting research and creative scholarship (administrative assessment – see below). This not only would provide support where vitally needed, but provide a powerful signal of confirmation that research and creative scholarship is a core mission of the University. These two types of budget transfers are listed below:
 - Approximately one million dollars is now being transferred from the Office of the VP for Research into an Index Code and at the end of the day these resources end up in the general fund which the campus uses to pay for necessary functions which need to be performed, the rationale being that the Office of the VP for Research has campus services rendered to it, such as from Human Resources, Purchasing, etc.

- However, the campus leadership is beginning to reduce this transfer of funds by \$100K in each of FY '12 and FY '13.
- Completely eliminate or significantly reduce the campus administrative assessment, which has recently been increased from six to eight percent, in order that these funds be reinvested in research and creative scholarship. This assessment is charged to all expenditures paid for from both the Office of the VP for Research's share of IDC's (approximately 2/3 of those IDC's recovered by UM) as well as the academic unit's share of IDC's (approximately 1/3 of those IDC's recovered by UM). To clarify, until approximately three or four years ago the administrative assessment now assessed to academic unit IDC's was paid by the Office of the VP for Research from their share of campus IDC's.
 - Timeline: as soon as feasible
 - Increase funding to seed faculty research
 - Funding could and should take multiple forms:
 - research support grants (supplies/travel),
 - summer salary grants,
 - course buy-out grants (particularly important in units with heavy teaching loads),
 - and grants for finishing costs for books (particularly important in the humanities).
 - Begin to increase internal research funding to approximately \$150,000 to \$200,000 (see recommended allocations under Provost) next fiscal year with a commitment to maintain and prioritize a robust investment in ongoing faculty productivity (consider various budget principles, such as targeting faculty development grants as a percentage of total institutional IDC).
 - Recommend directing 3% of the University's total Indirect Cost recovery dollars (FY '11 - \$8.8Million) towards supporting research and creative scholarship in units where teaching commitments are heavier and sources of extramural funding are fewer. The decision to allocate a percentage the IDC's acknowledges the interdependence of the University's shared missions of teaching and research and provides the resources for all units to flourish. As externally funded grants increase, it further seeds the research and creative scholarship across the whole campus, thus demonstrating how all units prosper from the research enterprise. This percentage structure effectively leverages large grants into numerous smaller funding opportunities in areas like the humanities, the arts, and professional schools where relatively small investments can yield rich rewards.
 - Increase funding for Graduate Studies.
 - Consider funding several graduate assistantships with no teaching responsibilities that would be awarded in a campus-wide competition to the highest quality applicants.
 - Work toward increasing the number and national competitiveness of teaching assistantships.
 - Allocate funds to help advertise our graduate programs so they can more effectively recruit the highest quality graduate students.
 - Timeline: 1 to 2 years
 - In order to address competitiveness with other universities at the time of hire, make new faculty start-up funds integral to the budget.

- A key way to send the message that research and creative scholarship is expected of faculty is to provide start-up funds including in those areas with low potential for extramural grants.
 - These need to be appropriate to the unit both in amount and nature of research and creative scholarship.
 - The corollary is that start-up funds will attract those driven to do research
 - Initially targeting funds to units where a nucleus of research and creative scholarship exist will likely be most effective as budding scholars will want to see active scholarship.
- Timeline: Begin to expand budget for start-up after the Provost and deans provide input on how much and where, 1-2 years.
- Direct that appropriate budgeting is available to support research infrastructure.
 - Including but not limited to Library resources, renovation and completion of research space (the Interdisciplinary Science Building, for example).
 - Timeline: Ongoing
- Allocate general funds as well as monies from the research office to support faculty research.
 - A general fund allocation would signal that research and creative scholarship is central to the mission of the University.
 - Consider matching the monies from the research office that seed faculty research dollar for dollar with general fund monies.
 - Timeline: next fiscal year for a match of research office monies with annual increments in following years.
- Direct the VP for Research and the Provost in the implementation of these research and creative scholarship budget priorities.

3) Mission Statement

Modify the University's mission statement to reflect that the conduct of research and creative scholarship is a core value by adding the following language:

*“The University of Montana-Missoula pursues academic excellence as demonstrated by the quality of curriculum and instruction, **research and creative scholarship**, student performance, and faculty professional accomplishments....”*

Timeline: As soon as feasible

4) Communication

- Fill the vacancy of the Director of University Relations whose task should be to dovetail with the goals set in the recent communication report completed by a consultant.
 - Professional skills for this position should be commensurate with the communications field.
 - Lead and coordinate effort to be proactive in communicating about research and creative scholarship at UM, using multiple channels and targets for communication.

- More broadly this person would work intimately with the President in framing and managing the public image of UM at the local, state and national level. (See below for more specific concerns about communication under University Relations.)
 - Timeline: national search to hire next fiscal year

Consider establishing a “Research Day” each year with a program designed to draw both campus and public attention to recent achievements in research and creative scholarship.

- Fund communication efforts so they can be done well.

5) Fundraising

- Lead and direct the effort to communicate to the Governor’s Office and the Legislature the rationale and need to fund research and creative scholarship as a central and base funded part of the mission of UM in collaboration with the Director of University Relations as part of a larger goal of achieving funding parity with MSU.
 - Timeline: immediate and ongoing efforts
- Lead and direct the effort to engage the congressional delegation to promote the research and creative scholarship of UM at the federal level in collaboration with the Director of University Relations.
 - Timeline: immediate and ongoing efforts
- Instruct the VP for Research to work closely with the President and CEO of the University of Montana Foundation to create a genuine partnership that maximizes opportunities for increased financial support from external sources. (See below under UM Foundation.)
- Work closely with the UM Foundation to cultivate and expand the number of major donors interested in funding research and creative scholarship at UM.
- Include in the next Capital Campaign:
 - Endowed faculty chairs in areas of excellence (as discussed below)
 - Endowed graduate assistantships
 - Endowments to support undergraduate scholarship
 - Endowments to support acquisition and maintenance of core facilities
 - Endowments to support seminar series in areas of excellence
 - Timeline – develop over the next 36 to 48 months

Provost

As head of the faculty and the administrator with ultimate responsibility for all aspects of the academic mission of the University of Montana, the Research Strategic Planning Task Force views that the most important responsibility of the Provost is to set academic policy that supports and provides incentives for teaching, research, and creative scholarship. Thus, our recommendations focus on the academic aspects of the recommendations to the President.

1) Identifying Areas of Excellence

Recognizing that due to limited funds, the University cannot be all things to all people, efforts need to be made to focus by identifying genuine centers of excellence that have a proven track record or the potential for research and creative scholarship to truly distinguish the institution. We

recommend creating a task force to carefully study this issue, using a metric that, in addition to the amount of external grants, includes publications, numbers and quality of citations, recognition by peers, impact on society, among other criteria.

- Have deans identify metrics/guidelines for areas of research excellence in their divisions.
- Use this data to identify opportunities for cross-disciplinary collaboration.

2) Promote a Culture of Research Among Faculty

- Direct that Unit Standards be revised, if necessary, to reflect expectations for, definitions of, and standards of peer-reviewed performance for research and creative scholarship.
- Develop and enunciate policies regarding the coupling of teaching loads with research and creative scholarship, recognizing that:
 - a wide disparity in teaching loads and in research expectations currently exists between units across the campus,
 - teaching loads could be adjusted up or down based on the research productivity of a faculty member,
 - heavy teaching loads can be a barrier to research productivity, and
 - any reductions of teaching loads will come with a commensurate increase in expectations for research and creative scholarship productivity.
- In conjunction with Deans, develop a buy-out policy for faculty that facilitates research and creative scholarship while at the same time ensures that classes will be taught for students.
 - Consider adopting a policy that the Provost's Office matches salary buy-out savings in the Dean's budget dollar for dollar to provide flexibility for Deans in replacing teaching effort of faculty who buy-out to focus on scholarship.
- Direct implementation of monies as directed by the President to seed research and creative scholarship.
 - Ensure that funding policies promote distribution to deserving faculty in all divisions.
 - Ensure that funding is available on a competitive basis to fit faculty needs in various units (course buyout, travel, finishing funds, supply funds, etc.).
 - Increase funding for the **University Small Grants Program** with a goal of \$75,000 to 100,000 for next fiscal year with about \$25,000 targeted to faculty in underfunded areas.
 - Create a **Faculty Excellence Fund** for mid-career faculty in underfunded areas with a goal of funding \$50,000 (for example, 5 grants at \$10,000) for next fiscal year.
 - Create a **Finishing Fund** that would support professors of any rank for the purpose of completing their projects, (for example, to cover cost of publication for books accepted for publication). Allocate \$25,000 (maximum grant \$5,000) for next fiscal year.
 - With faculty input, develop guidelines for defining underfunded areas.
 - Develop policies for reallocating funds between internal grant programs depending upon demand.
 - Ensure that adequate reporting procedures for outcomes of seed monies are in place.

- Develop policies for acknowledging grant support in published work and for tracking publications that result from internal grant support.
- Ensure that standards of past achievement are in place for faculty requesting repeat funding.
- Ensure that strategies are in place to assist faculty who have been supported by our internal grants program to find extramural funding opportunities.
- Develop policies for providing start-up funds for new faculty.
 - Work with deans to develop guidelines for appropriate levels and kinds (supply funds, travel funds, reduced course load, etc.) of start-up funds for different units.
 - Use these guidelines in budget planning in advance of faculty searches in conjunction with deans.
 - Work with the VP for Research and the President to fund start-up through appropriate combinations of funds from the Research Office and the General Fund.

3) Collaborate with the VP for Research to Ensure the FDO and the OVPR are Effectively Working Together

- Provide clarity (working with the VP for Research) on the strategic direction and respective responsibilities of the FDO and the OVPR.
 - If deemed appropriate, provide support for adequate staffing within the FDO.

4) Oversee integration of efforts of Research Office and Graduate Studies

- Meet regularly with the Associate Provost and Dean of the Graduate School and the VP for Research to identify synergies between graduate programs and research.
 - Identify units that could garner larger grants and develop synergistic strategies between the Research Office and Graduate Studies to spur grant writing in these units.
 - Identify grant opportunities to support graduate programs and provide incentives for units to pursue these opportunities.

5) Cross-Disciplinary Research Collaboration

- Develop and maintain a searchable, University-wide data base of faculty research and creative scholarship that permits cross unit collaboration and stimulates development of informal networks of individuals working on complementary or overlapping endeavors, ultimately leading to establishment of formal centers of excellence.
 - Populate the data base with information obtained from Individual Performance Records.
 - Provide password access so that new faculty, faculty on multi-year evaluation schedules, and faculty who have emerging interests or shifts in emphasis can update their profiles as needed.
 - Work with the FDO to support working lunches, brown-bag presentations, and other means of networking in identified areas of interest, potential, and excellence.
 - Potential collaboration for this effort might be sought from the Mansfield Library.
- Consider supporting internal seminar series to promote awareness of collaborative opportunities.

- Consider establishing an on campus space similar to a faculty club, dedicated to cross-disciplinary research collaborations and presentations.

Vice President for Research and ORSP

The VP for Research is directly and explicitly responsible for promoting growth of research and creative scholarship on the UM campus in partnership with the President and the Provost. The Office of Research should create a collaborative environment that facilitates the grant application and administration process to maximize the ability of faculty to focus on the conduct and dissemination of research. The Office of Research is responsible for the strategic use of IDC monies to develop and maintain research infrastructure, to attract new faculty and to seed new research projects. The Office of Research needs to take a lead role in communicating the results and impact of research and creative scholarship to the Governor, the Legislature, the Congressional Delegation and the broader public.

- 1) Review existing staff performance and effectiveness with an eye to identifying how to better serve constituents in order to enhance service to faculty and revenue generation. If appropriate, create an Associate Vice President for Research responsible for all aspects of pre-award, post-award and IRB functions in the Office of Research and Sponsored Programs.**
 - If this position is created, the individual holding it should possess a doctoral degree and have rich experience with grant writing, grant management, field reviewing, publication in scholarly books and peer reviewed journals, human subjects, as well as in graduate and undergraduate education. This person should be tasked to effectively coordinate with the FDO.
- 2) Reassess the various units and their functions reporting to the VP for Research; retain only those deemed to be integral to research and creative scholarship.**
- 3) Increase Grant Activity**
 - Increase the volume of grant expenditures by 50%.
 - Increase the volume of proposals submitted and funded by current grantees by 50%.
 - Timeline: 48 months
 - Increase the number of new principal investigators who submit their first proposal by 20 for the first year and a goal of 100 over the next five years. A possible approach would be to target one new grant writer from each department on campus.
- 4) Create an advisory board comprised of a faculty representative from each College, which will be tasked to provide guidance, vision, and feedback for the Research Office and for the Research Administration Oversight Committee.**
- 5) Consider making ORSP employees contract professionals.**
 - Would permit merit increases and other incentives and rewards for top quality and low error service to PIs (primary investigators) seeking and using research funds.

6) Increase current efforts to be proactive and to reach out to the faculty in ways that enhance their research and creative scholarship.

- Specifically tailor communications regarding opportunities to the expertise of the faculty. To do this, we recommend working with department chairs to schedule at least one meeting per year in which the Director of the Office of Research, along with the appropriate designated pre- and post-award specialists, meet with the faculty face-to-face to discuss opportunities and concerns.
- Develop a database with sample approved IRBs available to all and searchable from the web page. This will help to develop a consistency in expectations for applicants as well as the IRB committee.
 - Given the IRB committee's rotating membership this database can also enhance consistency and the development of internal expectations to guide essential aspects of protection of human subjects and possibly minimize the wide variation in feedback experienced by researchers.

7) Pre-Award

- Task a group of seasoned PIs and fiscal personnel to invigorate information dissemination regarding award opportunities, create systems to train grant writers, publicize incentives including research base salaries, instructional or service release, extra compensation, summer support, graduate student recruitment, and funding.
- Eliminate barriers to proposal submission, including inefficient or bureaucratic features that do little to protect the institution. (The same task force could accomplish this work.)

8) Post-Award

- Create a culture of service wherein PI errors resulting from naiveté are considered instructional opportunities and repeat errors of omission or commission are subject to progressive discipline. Foster an environment where OSRP staff have positive incentives to facilitate the administration of grants for PIs so that they can focus on productive research and where PIs recognize and appreciate that the ORSP staff are eager to answer questions and solve problems in a collaborative manner.
- Clarify mechanisms for designating exceptions to cost accounting standards (i.e., when IDCs are waived and no state base is available).
- Maintain record of near zero audit findings, paybacks and fines.
- Implement applicable sections of the UFA Collective Bargaining Agreement to remove and disbar PIs who place the institution at risk.

9) Create a position to professionally manage the University's core facilities.

- Develop systems to fund core facilities subsequent to federal support, studying the possibilities of cooperative arrangements on equipment and use with researchers at MSU and a blend of fees for service and state-base dollars.
- Create a Core Research Facilities Committee made up of stakeholders that will advise the core facility manager in developing consistent campus-wide policies for sustainable operation of core facilities, including guidelines for designation as a core facility. The

committee will also participate in annual monitoring of core facility use and associated adjustments in allocation of support to each core facility.

10) Post-Grant

- Build a central reserve fund that could provide bridge funding to supply essential support in order to maintain historically productive grantees should they fail to be refunded at some time in their careers at The University.
- Develop transparent policies and procedures for PIs to acquire bridge funding, including their responsibilities and limits of duration.
- Timeline: 36 months

11) Provide additional support for the Technology Transfer Office, including:

- Explicit, tangible acknowledgement (in the form of position description and job title) of the major outreach role this office is playing in terms of economic development with State Government, the Legislature, the business community, MonTEC, and other constituencies.
- Supporting staff (beyond student interns) and infrastructure (including requisite software and legal advice for intellectual property) to enhance the volume of projects and evaluation of projects.
- Support for the Strategic Planning Process this office is currently conducting.

12) Communication

- Communicate regularly and in a timely fashion with the Deans about the number and status of proposals originating from within their units, allowing sufficient time for consultations when long-term financial commitments are involved, especially on EPSCoR and COBRE grants.
- Hold two or three meetings a year with those Deans whose faculty have secured the largest grants in order to share experiences, address common problems, and take advantage of common opportunities.
- Establish clear and transparent policies relating to the distribution of IDCs.
- Avoid making side deals in any shape or fashion that lack transparency and are not open to discussion. Such side deals pose a serious opportunity cost to the institution and destroy morale when they are not discussed or known by anyone else.

13) Invest

- Enhance our research investment in the Mansfield Library with the expectation that it will generate greater research capacity and long-term benefits to research productivity and our IDC rate.
- Increase funding for the undergraduate research award program and set up a separate category for research support for direct student support of existing faculty projects rather than student-directed research: a “research work-study” program.

- 14) Work closely with the University of Montana Foundation to create a genuine partnership that maximizes opportunities for increased financial support from external sources.** (See below under UM Foundation.)

Associate Provost and Dean for Graduate Studies

Graduate students provide one of the underpinnings of our research and creative scholarship. They are ultimately walking advertisements for the quality of the research and creative scholarship on the University of Montana campus. The Associate Provost and Dean for Graduate Studies needs to oversee the quality of our graduate curricula and programs, identify areas for growth in graduate programs and implement strategies that will allow the University of Montana to compete for high quality graduate students. We would like to commend all of those who worked to secure tuition resident status for a significant number of UM graduate students, and now wish to build upon this development.

1) Recruit High Quality Graduate Students

- Develop strategies to help units consistently recruit high quality graduate students in conjunction with the Graduate Council.
 - Where appropriate utilize joint recruiting efforts and admission committees.
 - Leverage more efficient use of TA's across programs with different levels of undergraduate teaching needs.
 - Look for ways to fund graduate student research support in traditionally underfunded areas: small-scale research support jobs that would enhance faculty research that are not necessarily tied to teaching.
 - Provide assistance to graduate programs in advertising their programs.
- Develop guidelines for cross-campus competition for several non-teaching graduate assistantships aimed at attracting the best graduate students to UM.
- Track what constitutes a competitive stipend in different fields of graduate study to set goals for funding levels for TA stipends.
- Working with Graduate Council evaluate whether graduate assistantships are being used as efficiently as possible both in terms of teaching needs, size of program, and recruiting of graduate students.
 - Develop strategies to optimize usage of graduate assistantships for the benefit of research and creative scholarship at UM.

2) Establish Research Standards for Graduate Curricula

- Work with Graduate Council, programs with accreditation, and graduate programs to identify and establish high standards across all graduate programs.
- Ensure that all programs have effective mechanisms for evaluating graduate student progress and for dealing with students who are not progressing well.
- Work with the Graduate Council to ensure that the current reviews of graduate programs can provide indices of strengths, weaknesses, strategies for improvement and resource needs that the Graduate School, in conjunction with the Provost's office can effectively address.

3) Identify Areas of Growth

- Work with Provost and VP for Research to identify graduate programs with potential for growth and high impact on research and creative scholarship.
- Develop incentives to promote growth of these programs.

Deans

Because much of the responsibility for balancing teaching and research requirements rests with the academic units, Deans must be empowered to make decisions (in conjunction with Dept. Chairs) consistent with an emergent research culture in some units, and to continue to enhance and embrace research excellence in other units.

- 1) Share best practices across units about what is working to enhance research and creative scholarship.**
- 2) Look for synergies and complementarities to pursue opportunities that could benefit multiple academic units, especially in cross-disciplinary efforts.**
- 3) Work with the Provost and departments to develop unit standards that expect and recognize excellence in faculty research and creative scholarship.**
- 4) Work with the Provost to define the level of assistance that would be needed to adjust teaching loads in such a way as to promote research excellence.**
- 5) Develop written plans for research/creative scholarship in their units to share with the Provost and the VP for Research.**
- 6) The CAS Dean in particular should be encouraged and supported in his efforts to develop a Humanities Institute to reward and empower faculty research and creative scholarship.**
- 7) Work with the VP for Research and academic departments to ensure that faculty submitting proposals to ORSP (pre-award) do so in a timely and suitable fashion.**

UM Foundation

Both the Office of the VP for Research and the University of Montana Foundation are charged with securing funds from external sources to help further the mission of the institution as a whole. Historically, the opportunities for these two divisions to work together and cooperate has not been fully explored or utilized, especially in obtaining extramural funding for research and creative scholarship. This must change if sources of additional support are to be found, particularly in “low dollars/high impact” areas.

- 1) Work closely with the President and the VP for Research to articulate respective responsibilities and to create a genuine partnership with a shared value of a win/win approach to fundraising.**

- 2) **Work closely with the President and the VP for Research in investigating the best practices of other universities in considering new models of total resource development.**
- 3) **Work closely with the President and the VP for Research to develop a policy that distinguishes between contracts (exchange transactions), contributions (charitable grants), and gifts based upon the standards and guidelines established by the Council for the Advancement and Support of Education (CASE) and the National Association of College and University Business Officers (NACUBO).**
- 4) **Work closely with the President, the Provost, and the Deans to identify in the next Capital Campaign specific areas for support that will contribute to research and creative scholarship. (See recommendations under President.)**

University Relations

University Relations has a critical role in representing and cultivating the image that the University of Montana in an intentional manner puts forward to the community, the state, the nation, and the world. It is essential that the breadth, depth and impact of research and creative scholarship at the University of Montana be effectively and consistently communicated to these constituencies to establish and reinforce the accomplishments of the University.

1) Hire a full-time Director of University Relations

- This person should have strong skills in strategic public relations with extensive experience at a peer or better research University and the ability to develop and implement a comprehensive strategy to promote and develop the reputation of the University of Montana.
- This person would work closely with the President to develop the vision and goals for an effective communications strategy that will promote and solidify the reputation of The University of Montana as a University engaged in a broad base of research and creative scholarship with vital societal impact both economically and culturally.

2) Develop a communications strategy that uses multiple channels and operates at the local, state, national, and international levels in order to cement the reputation of The University of Montana as a center of excellence in research and creative scholarship.

- Incorporate and expand upon existing outreach mechanisms – Provost’s Lecture Series, the Alumni Community Lecture Series, and The Montanan and Vision publications – so that our reputation is reaching the audiences it needs to reach.
- Define the target audiences for this message.

3) Cultivate essential relationships that will aid the University in procuring the external resources necessary to grow as a center of research and creative scholarship and thus an engine for economic growth in Montana.

- State and local
 - Community and business leaders
 - State and local print and broadcast journalists
 - Legislators from both parties and both chambers of the state legislature

- Governor's office
- National level
 - Congressional delegation
 - National media outlets
- Become known as the clearinghouse for news where people report their research and creative scholarship successes.

Faculty

The primary responsibility for the quality and the quantity of teaching, research, and creative scholarship at The University of Montana rests with the faculty. As teachers, faculty have the responsibility to bring their best to the classroom by participating in research and creative scholarship to maintain and enhance their expertise. As researchers and writers, faculty have a similar responsibility to share their discoveries, especially with students, by teaching.

It is precisely for this reason that the Collective Bargaining Agreement under the section entitled "Academic Responsibilities" reads: "Every person in the bargaining unit is at one and the same time (1) a teacher, (2) a member of the faculty of the University, and (3) a scholar. By virtue of his/her position in the University, the individual shares all three of these functions, each of which is of great importance."

While the single most important contribution an individual faculty member can make to the University's research mission is her or his commitment to pursuing their research and creative scholarship, each should also look for ways to enhance the broader mission by participating in the community of research-scholars. This can be accomplished by supporting the research and creative scholarship of their peers, participating in collaborative efforts, mentoring younger faculty in their development, and paying greater and explicit attention to the impact of the individual faculty member's work on the larger University community. With this in mind, the following specific recommendations for faculty provide practical ways in which this contribution can be enhanced:

- 1) Establish, monitor, and then maintain Unit Standards that reflect serious expectations for, definitions of, and standards of peer-reviewed performance for research and creative scholarship.**
- 2) Strive to bring the fruits of research and creative scholarship into the educational process both in the classroom and through conscientious mentoring and training of research students whether at the undergraduate, graduate or postdoctoral level.**
- 3) Actively participate in the workshops and seminars provided by the Faculty Development Office, the Office of Research and Sponsored Programs, and various programs sponsored by their respective Deans designed to support research and creative scholarship.**
- 4) Actively participate in the development and use of a searchable, University-wide database of faculty research and creative scholarship.**
- 5) Senior faculty members should actively mentor less experienced faculty in research and creative scholarship opportunities, acquisition of grants or means of funding, publication**

opportunities, and valuable professional networking that can facilitate and actualize the impact of their work.

- 6) Those faculty who have relationships with potential donors should bring them to the attention of their respective Deans and the appropriate staff of the University of Montana Foundation.**

IV: Implementation and Follow-Up

Our recommendations are, at their core, an effort to encourage and enable The University of Montana to continue on its path toward excellence by enhancing not only its teaching but also its research and creative scholarship. Toward this end, we strongly recommend that this report not be allowed to be read once and then discarded to sit on a shelf. If this happens, we will have surely failed in our efforts. We call upon all of those identified to address the recommendations in good faith and with energy. We also call upon the President create a committee of knowledgeable and dedicated members to monitor progress on the various recommendations made in this report.

V: Recommendations For Immediate Implementation

We are fully aware of the fact that the many recommendations made in this Report will take time, money, and thought to implement. Those dealing with the relationship between teaching loads and research expectations, unit standards, and a shift in culture are among these. Nevertheless, there are some actions that should be taken immediately in such a way as to have a concrete impact and to convey a new and more serious resolve and institutional commitment to research and creative scholarship.

We believe that it is important to quickly introduce changes in the Office of the Vice President for Research and ORSP, to improve communication about research both internally and externally, and to create a university-wide database of faculty research and creative scholarship.

We also believe that it is important to immediately invest in research and creative scholarship by funding the following:

- Faculty Development (see pages 13 and 16)
 - University Small Grants Program
 - Faculty Excellence Fund
 - Finishing Funds
- Faculty Buy-Outs (see pages 13 and 16)
- Core Facilities Management (see pages 19-20)

- Support for Writing Grant Proposals, especially for those who have not had a funded proposal (see pages 7, 12, 18, 19, 20, and 22)

Respectively Submitted,

The Research Strategic Planning Task Force
February 2011

Appendix I
Sources of Information and Perspective

Research Strategic Planning Town Hall Meetings

College of Arts and Sciences
College of Education and Human Sciences
College of Forestry and Conservation
College of Health Professions and Biomedical Sciences
College of Technology
College of Visual and Performing Arts
School of Business Administration
School of Journalism
School of Law

UM Administration

Perry Brown, Provost and VPAA
George Dennison, Former UM President
Dan Dwyer, Vice President for Research and Development
Royce Engstrom, UM President (Provost and VPAA when the Task Force was assembled)
Joe Fanguy, Director, Office of Technology Transfer
Ray Ford, Chief Information Officer
Mehrdad Kia, Associate Provost for International Programs
Stephen Sprang, Associate Provost and Dean of the Graduate School

Deans/Designees

Bonnie Allen, Dean, Mansfield Library
 Bernadette Bannister, Director, Community and Professional Services, Continuing Education
 Perry Brown, while Dean of the College of Forestry and Conservation
 Chris Comer, Dean, College of Arts and Sciences
 Bobbie Evans, Dean, College of Education and Human Sciences
 Larry Gianchetta, Dean, School of Business Administration
 Barry Good, Dean, College of Technology
 Stephen Kalm, Dean, College of Visual and Performing Arts
 Peggy Kuhr, Dean, School of Journalism
 Jim McKusick, Dean, Davidson Honors College
 Irma Russell, Dean, School of Law

Center Directors

Patrick Barkey, Director, Bureau of Business and Economic Research
 Ric Hauer, Director, Montana NSF EPSCoR and Professor, Flathead Lake Biological Station
 Jack Nunberg, Director, Montana Biotechnology Center
 Stephen Sprang, Director, Center for Biomolecular Structure and Dynamics
 Larry Swanson, Director, O'Connor Center for the Rocky Mountain West

Other

Laura Brehm, President and CEO, UM Foundation
 Carol Brewer (for her involvement in the Academic Strategic Planning Committee)
 Judy Fredenberg, Director, Office of Research and Sponsored Programs
 Sheila Hoffland, Director of Budgets and Operations, Office of Research and Sponsored Programs
 Ric Thomas, Vice President for Development, UM Foundation
 Mona Weer, Director of Grant Accounting, Office of Research and Sponsored Programs

Groups

Chairs of Internal Funding Committees for Faculty Development
 Faculty Senate
 Rural Institute

*The Task Force also received innumerable amounts of feedback from the campus community in the form of emails, letters, questionnaires, and informal conversations.