Final Report

of the

Research Incentives Committee



University of Missouri-Columbia April 21, 2000

RESEARCH INCENTIVES COMMITTEE

Bernard Ewigman, Chair Family and Community Medicine

> Mel Blase Agricultural Economics

Gordon Christensen Internal Medicine

> Vicki Conn Nursing

Charles Cowger Social Work

William Folk Biochemistry

Paul Gader Computer Engineering and Computer Science

> Barbara Reys Curriculum and Instruction

Lela Riley Veterinary Pathobiology

> Ken Sher Psychology

A. Mark Smith History

Jack O. Burns, ex officio Vice Provost for Research

Tom R. Thomas, *ex officio* Associate Vice Provost for Research

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SUMMARY OF MAJOR RECOMMENDATIONS

April 21, 2000

	Major Recommendations	Related Recommendations
\Rightarrow	Maintain the new Research Incentive Fund policies of no cap and a fixed rate (currently 25 percent) to the originating unit, and set a goal to increase the rate to 35 percent, including a portion to the dean's office of the originating school.	#1–5, pp. 5 & 6
\Rightarrow	Increase funding for all internal competitive programs including the PRIME fund, summer research fellowships and Research Council grants.	#6–13, pp. 8 & 9
\Rightarrow	Improve research infrastructure, including new equipment and enhanced laboratory, library, and computer/network infrastructure.	#14–19, p.10
\Rightarrow	Provide full funding for six months sabbatical, and 50 percent funding for twelve months.	#20–23, p. 12
\Rightarrow	Maintain expectations of the highest standards of research, scholarship and academic	#24–28, p. 14
	accountability for all leaders and faculty.	
\Rightarrow	Place a high priority on reversing the decline of research productivity at the Health Sciences Center.	#29, p. 18

REPORT OF THE RESEARCH INCENTIVES COMMITTEE

I. BACKGROUND

The MU Campus Strategic Plan calls for convening a committee of scholars to identify:

- incentives for research that should be implemented, and
- disincentives that may exist and may need to be eliminated.

Provost Brady Deaton asked us to serve on the Research Incentives Committee in December 1998 to carry out this charge. As committee members, we interpreted our mission and scope of work broadly. We chose to examine many aspects of the MU environment that have the potential to enhance or detract from research and scholarship. We adopted the purpose statement and work scope below to guide our deliberations:

Purpose Statement

The Research Incentives Committee (RI Committee) will recommend strategies to the Provost for maximizing the growth of research and scholarship at the University of Missouri-Columbia with an emphasis on increasing external sources of funding.

Work Scope

- A. Evaluate and consider policy recommendations for:
 - 1. Priorities for leadership and vision
 - 2. Institutional policies regarding hiring, tenure and promotion
 - 3. UM Research Board
 - 4. Flexibility in staffing and workload distribution for faculty
 - 5. Facilities and Administration (F&A) or indirect dollars
 - 6. PRIME Fund
 - 7. Sabbatical, leave and development programs
 - 8. MU Research Council
 - 9. Master Plan as it may affect incentives and disincentives
 - 10. Other current incentives and disincentives
 - 11. Potential new incentives
 - 12. Methods of communicating a clear and consistent message regarding maintaining the priority on research productivity.
- B. Recommend tools, mechanisms and strategies for program implementation, evaluation and accountability at the central administration, school, department, and individual faculty levels as part of each policy recommendation.

II. METHODS

We examined available policies, budgets, prior reports, and performance indicators in each of the areas within our scope of work. We gathered feedback from many individuals on the MU campus. We examined selected policies, programs and research funding trends at other Carnegie Research I public universities for comparison purposes.

The committee as a whole met for a half day every other week during the winter semester of 1999. Nine subcommittees met separately to examine particular issues in depth. These subcommittee members led discussions with the entire committee on their designated issues and met with interested faculty members and administrators throughout the MU campus to identify problems, successes and suggestions.

We used several systematic approaches to elicit input from the MU faculty and administration (deans and chairs). We published an announcement of our work in the *Mizzou Weekly* on February 4, 1999 (See Attachment A). We sent announcements by e-mail to all 1,669 faculty on January 27, 1999, and a two-item survey to the nine deans and 90 chairs at MU (Attachment A). The suggestions and feedback we received was extremely helpful in the final preparation of this report (see Attachment B). The RI Committee chair and several members met with a subgroup of the MU Resource Advisory Council (RAC) to review our preliminary recommendations and to obtain feedback from a budget planning impact perspective. An RAC representative also attended the majority of the Research Incentive Committee meetings during the summer and fall of 1999. A member of the Faculty Council served on the Committee as a liaison.

We completed a preliminary report and set of recommendations in May 1999. We distributed this report to all department chairs and deans at MU and asked for feedback via e-mail, in writing or during two separate meetings held for this purpose. We received a large volume of feedback. In addition, both of the two-hour meetings on May 12 and May 19, 1999 were well attended and included lively discussions.

The subcommittees and the committee as a whole reconvened periodically in the summer and fall of 1999 to discuss the extensive feedback that we received from faculty, chairs and deans in response to the May 1999 preliminary report. We then prepared the current document by a consensus process as our final report to Provost Deaton.

III. FINDINGS AND RECOMMENDATIONS

III.A. Overview

Dr. Hugh Stephenson, President of the UM Board of Curators, was recently quoted saying that the University of Missouri is a priceless treasure. We concur with that characterization, and believe it is particularly apt for the University of Missouri-Columbia campus (MU). As the flagship campus and a Carnegie Research I public land grant institution, MU provides the environment and opportunities for faculty to engage in outstanding scholarship and intellectual pursuits. The Committee found evidence of the leadership, infrastructure and support required for this mission to thrive as we enter the next millennium.

According to the Summary of Grants and Contracts published annually by the Office of Research,

MU received \$108 million in newly awarded external research project awards for the year 1999. This amount is more than double the \$47 million awarded in 1994. Although the quantity of external dollars for research is not a precise measure of excellent scholarship, it is a measure of competitiveness that can be linked to quality.

There are several essential characteristics of the MU environment that have enabled this growth. Faculty and administrative leadership that exemplifies and promotes vigorous intellectual standards is a key element, if not the key element, in maintaining and enhancing research and scholarship at MU. Institutional policies, standards for hiring new faculty, accountability processes for promotion and tenure, and expectations of continued scholarly work at the senior faculty and chair levels are fundamental to the research enterprise. The MU infrastructure supports scholarly work through our laboratories, offices, clinical facilities, library resources, and computer/information systems. The internal funding programs administered by the Office of Research are an important source of support. These include Research Council Grants, the PRIME Fund, and the Research Incentive Fund. The Research Board, administered at the UM system level, is another important program that provides incentives for research and scholarship.

Despite evidence of growth and impressive strengths, we found evidence of fundamental problems (or "disincentives" to use the language of our charge) that impede scholarship and research at MU. Notably, MU ranks near the bottom of nearly every measure of research and scholarship when compared to other public Research I institutions. This low ranking is especially marked when MU is compared with other institutions that have medical schools on their campuses, as is the case at MU. We describe these disincentives in detail in this report, along with recommendations that are intended to address these disincentives.

MU is indeed a priceless treasure. While the research mission is no greater in importance than our service or teaching missions, it is our charge to generate new knowledge that distinguishes us as a university community. The synergy created by a community engaged in the scholarship of discovery, integration, application, and teaching linked with a strong service component is what ultimately makes MU priceless. But MU is lagging behind in research. For that reason we report our findings and offer recommendations to augment the important research enhancement initiatives already underway.

III.B. Facilities and Administration Funds (F&A)

III.B.1.Background and Strengths-F&A

Facilities & Administration (F&A) funds help maintain infrastructure, support research administration and stimulate research and scholarship. The F&A funds currently generated are approximately \$15 million per year. The wise investment of these funds is of considerable importance to the future of research and scholarship at the University of Missouri-Columbia.

F&A funds at MU are distributed to cover the institutional costs of research and scholarship (general operating budget) and to the departments or units of the investigators who generated the funds (this portion of the F&A is referred to as Research Incentive Fund or RIF). The committee agreed that the distribution of a share of F&A funds to originating units (RIF) has been an

important incentive and a productive investment for enhancing the growth of external funding. This was especially true in the early years of the program when RIF was 50 percent of the F&A.

As F&A has risen from 26 to 46 percent of the direct costs, the RIF rate has declined from 50 percent to a projected 22 percent for the current year. With the advice and support of this Committee, a new RIF rate was set at 25 percent in 1999.

The Office of Research has served an increasingly important role in recent years as an advocate and facilitator of research and scholarship. Increased investment of F&A funds in this Office has enhanced the level of external research funds and facilitated the processes of research and scholarship on the campus.

The Committee identified several significant disincentives, issues or problems with the current distribution of F&A funds. We describe these disincentives, then follow with recommendations which we believe might stimulate additional growth in research and externally funded activity.

III.B.2. Issues and Problems–F&A Funds

III.B.2.a. From the early 1990s until late in 1999, the amount of RIF funds was capped at \$3,261,689; as a consequence, although external funding to MU more than doubled during this time, the percentage of F&A funds returned to originating units eroded steadily. This was a disincentive and a source of frustration among the most productive units that routinely exceeded the cap.

III.B.2.b. Currently, too few faculty and administrators are aware of RIF policies or are able to respond to new opportunities and make investment in areas with the greatest potential for return. Decisions regarding allocation of F&A funds, including RIF, are best made at different levels (campus, school/college, department or individual investigator) depending on many circumstances. The best investment of this money depends on and should be responsive to opportunities in the external environment; the particular discipline involved; and the facilities and administrative needs of specific departments, research centers or schools. These monies may be needed at various times for supplementing external funds; providing additional support for successful principal investigators; building laboratory, library or other infrastructure; to investing in new faculty seeking external funding.

III.B.2.c. Over the past few years a balance of \$4-5 million have remained in unencumbered RIF accounts in individual departments. While the Committee understands the rationale and need for some carry-over funds, from an investment perspective, this represents unproductive use of a significant amount of F&A funds.

III.B.2.d. The Committee believes that dean's offices in the colleges/schools have insufficient resources and lack input into decision-making to stimulate and/or support innovative programs to increase external funding. This creates a disincentive for research at a critical leadership level of the institution. RIF is one possible source for providing discretionary funds to deans for this purpose.

III.B.2.e. The lack of systems for accountability regarding the use of F&A funds leaves the MU community with no way of knowing how the investment of F&A performs with respect to maintaining facilities, administrative programs and leading to the growth of research and scholarship.

III.B.3. Recommendations–F&A Funds

Recommendation #1: Continue to distribute a set rate of F&A Funds (RIF) to the units (centers, departments and colleges) which generate these funds. This policy is a critically important incentive to research and scholarship at MU. The Committee recognizes that in some highly productive Research I universities, no F&A funds accrue to the investigator or department. We believe that this is a matter of developmental stage of capacity. A well-established organization has an adequate critical mass of senior faculty, mid-career faculty, junior faculty and trainees working with adequate space, equipment and staff. Designation of authority for spending F&A or salary savings within their own units is not as critical as in units that are in an earlier developmental stage. Such well-established units already have the infrastructure and capacity to carry out their mission. That is not the case for many (if any) units at MU. We conclude that for most schools and departments at MU, additional development and investment decisions by the most productive faculty and units are essential if we are to catch up with our counterparts nationally and reach a stage of sustainable productivity.

Recommendation #2: Set a goal to increase the total RIF rate to 35 percent, including a portion to deans to provide resources and decision-making ability related to enhancing research and scholarship in their colleges/schools. This provision would align incentives at multiple levels of resource allocation and is consistent with the strong feedback we have received regarding the desirability of a higher RIF rate.

Recommendation #3: Encourage greater accountability and faculty participation in the development and annual review of departmental RIF policies. We do not believe that one formula necessarily fits all. For this reason we recommend that department faculty, with the leadership of the department chair, should determine the policy for distribution of departmental RIF and review that policy annually. A written policy signed by the dean, department chair or unit leader should be expected. Recipients of RIF funds should, on an annual basis, submit brief summary reports to the Office of Research indicating how F&A funds were used. These should be publicly available to stimulate faculty and administrators to most effectively utilize these resources.

Recommendation #4: Designate a portion of F&A funds to support PRIME, Research Council and other competitive initiatives administered by the Office of Research. The Research Council, PRIME fund and other competitive initiatives require additional funds to enable increased scholarship. We urge that at least 15 percent of F&A funds be available for administration of programs such as PRIME and Research Council by the Office of Research.

Recommendation #5: Create a central administration banking system to utilize, on a loan basis, RIF funds held over by departments. F&A funds that are held over from one fiscal year to the next in anticipation of needing bridge funding between projects or accumulating a larger amount, should be available under a revolving banking system. This system will make several million

dollars available that would otherwise sit dormant. Appropriate systems, accountability and an understanding of the terms of the loan would be essential to guarantee confidence in the availability of money when needed by the investigators.

III.C. Research Council

III.C.1. Background and Strengths-Research Council

The Research Council administers programs for grants, summer fellowships, research leaves and international travel. These programs are vital sources of support for research and scholarship across the MU campus, especially in the humanities and arts.

Research Council Grants are awarded to support research and scholarship conducted by individual tenured and tenure-track faculty members. Special applications for Research Council funds are available for non-regular faculty. Funds are commonly provided to assist initiation of new projects and, in disciplines for which securing funds from other sources is particularly difficult, to cover costs associated with continuing research projects. These awards were made for up to \$3,500 until the fall of 1999 when this amount was raised to \$5,000. The Research Council Small Grants program is similar to the regular grant program, except that the maximum award is \$1,000.

Annual Research Council funding has ranged between \$106,000 and \$146,000 per year over the past five years. In 1997-98, the Research Council received 84 applications and made 55 awards, for a total amount of \$123,415. In 1998-1999, 50 awards were given out of 75 applications for a total amount of \$108,451.

The Summer Research Fellowships are intended to permit faculty to devote at least eight continuous weeks during the summer to research or scholarship. For applicants whose proposals are judged to be of similar merit, preference is given to untenured professors. The stipend is \$3,500 to \$7,000 (for one to two months' support). These awards are particularly valuable for individuals on nine-month appointments who wish to pursue research over the summer months.

The Faculty International Travel Awards assist with airfare to attend major international meetings and conferences, give performances, or hold exhibitions. The maximum award is \$1,500 and the applicant's department or the meeting sponsor is expected to split the travel costs.

The Research Leave program provides faculty members the opportunity to devote six to twelve months to collaboration, research, scholarship and creative activity with scholars at other institutions and in other parts of the world.

III.C.2. Issues and Problems–Research Council

III.C.2.a. The Research Council funding level is inadequate for a faculty of our size. There are approximately 1,200 tenure-track or tenured faculty on the MU campus; an average of about \$100 per faculty member per year is available for support through Research Council programs. For example, in 1996-1997, only 16 of 40 applications for a Summer Research Fellowship were approved; in 1997-1998, only 12 of 48 applications were approved.

III.C.2.b. The maximum amount of funding for the individual Summer Research Fellowship is too low (\$7000) and should be raised to that of the current level of funding by the UM Research Board for fellowships (\$10,000).

III.C.2.c. It appears that senior faculty in the humanities and arts (and in some other disciplines where external funding is scarce) currently have the least incentive for seeking external funding. While external funding amounts are low when compared to the sciences, the financial needs of these faculty also tend to be small by comparison. However, there is very little external funding in the areas where there is need (i.e. salary-compensation for time off, summer salaries and travel funds). There is a need for internal incentives for seeking external funding. There is a need to reevaluate priorities/target groups for internal research funding.

III.C.3. Recommendations—Research Council

Recommendation #6: The Research Council budget should be increased threefold at a minimum from the 1997-1998 levels. In order to stimulate both scholarship and the search for outside funding, the MU campus must commit more resources than it has in the past few years.

Recommendation #7: The maximum for individual Research Council Grants should be raised to \$6,000. Current funding is too low to give sufficient assistance to new projects and provide support for disciplines where funding from other sources is meager.

Recommendation #8: The stipend for Summer Fellowships should the same as that allowed by the Research Board. The Research Board Fellowship stipends allow 2/9 of the applicant's ninemonth salary up to a limit of \$10,000.

Recommendation #9: Research Council awards should focus on three faculty groups: non-tenured, tenure-track faculty; tenured faculty making career changes; and tenured faculty in disciplines for which securing funds from other sources is particularly difficult. Investment in these three faculty groups is strategically important to increase research productivity on this campus.

Recommendation #10: High priority should be given to Summer Fellowship applicants who receive major external fellowships that do not cover summer salaries. Examples of such funding sources include individual fellowships from the National Endowment for the Humanities, the National Endowment for the Arts, the Ford Foundation, Guggenheim and others that do not provide faculty salary support. Faculty receiving these highly competitive and prestigious awards should have a high likelihood of receiving Summer Fellowship support.

Recommendation #11: The Research Council should double the number of Summer Fellowships it awards each year. Summer is a crucial time for faculty to concentrate on research without the competing demands of teaching and other responsibilities of the academic year.

Recommendation #12: The Research Council should consider prorating two separate pools of money, one designated specifically for non-tenured, tenure-track faculty development and a second for tenured faculty development. Generally, non-tenured, tenure-track faculty proposals

are less competitive than those of tenured faculty who have existing lines of research, yet it is strategically important to assist non-tenured, tenure-track faculty to get started.

III.D. PRIME Fund

III.D.1. Background and Strengths-PRIME Fund

The PRIME Fund is administered by the Office of Research and provides cost-match support for original scholarship and research at MU, including both a General Fund for Research and an Instructional Fund for research and scholarship related to instruction. PRIME Fund awards are intended to provide cost match for any expenses on new external grants that require cost matching. As a general rule, the PRIME Funds are awarded for up to 25 percent of the total amount requested, and another 25 percent must be matched by the department or division. The total amount available was expanded in 1999 to \$1 million. Requests for cost sharing on any expense was also allowed for the first time in 1999.

In fiscal year 1999, the total of PRIME Funds awarded (contingent on external agency funding success) was \$785,641 for 15 proposals from 14 departments. These proposals could not have been submitted without the PRIME Fund, and many past proposals have been successful because of it.

We believe that the PRIME Fund has been a highly successful program and that the changes enacted in 1999, prior to the time when our Committee reviewed the program, were positive changes.

III.D.2. Issues and Problems–PRIME Fund

Sufficient resources need to continue to be committed to the PRIME Fund so that there are no constraints on the ability of faculty to apply for external grants requiring matching funds.

III.D.3. Recommendation—PRIME Fund

Recommendation #13: Provide incremental annual increases in the PRIME Fund budget as needed to insure that adequate funds continue to be available. As costs per award increase, as new faculty members are hired through Mission Enhancement and other means, and as faculty utilize this resource more frequently, more funds will be needed. Careful attention should be given to insuring that lack of funds is not a rate-limiting factor in this highly successful program.

III.E. Research Board

The Research Board was evaluated by an external panel in the fall of 1998. During the time period that our Committee reviewed the Research Board early in 1999, policy changes were under active consideration, and the Committee sent a letter with our recommendations to Provost Deaton on March 1, 1999. A copy of this letter is included in this report as Attachment C.

III.F. Infrastructure

III.F.1. Background and Strengths-Infrastructure

Universities provide the unique infrastructure and environment necessary to foster research and scholarly work. Particularly important are office space, laboratory space, library and computing resources, equipment, and administrative support for both trainees and faculty.

III.F.2. Issues and Problems-Infrastructure

- III.F.2.a. Evidence abounds of significant infrastructure deficiencies at MU that are major disincentives, and must be corrected to retain current faculty and to successfully recruit new faculty. High quality research space is essential to sustain the research mission of the University. Critical needs are present for renovation of existing space and for new construction, both for present faculty and for new faculty hired through the Mission Enhancement initiative.
- III.F.2.b. Research and scholarship also require major equipment, computing and library resources—the tools of research. The University administration must ensure their availability to the community, concomitant with plans to enhance the research mission of the University.
- III.F.2.c. Research and scholarship of the highest caliber also require a constant replenishing of intellectual capital. The University must ensure that the graduate students, postgraduate fellows, and junior and non-regular research faculty have opportunities and benefits equivalent to those at other Research 1 AAU universities.

III.F.3. Recommendations-Infrastructure

Recommendation #14: Establish a non-instructional facilities fund to enable continuing renovation of space and strengthen communication between the research community and the Capital Review and Space Planning Committees. Much of the present research space is seriously out of date and in need of upgrading. Better communication could ensure that the renovation, repair and replacement of space address high-priority research needs.

Recommendation #15: Establish a Major Research Equipment Fund to enable the purchase of equipment costing more than \$0.5 million for which external funding is difficult to obtain.

Recommendation #16: Identify funding for the MU libraries sufficient to ensure the collections, subscriptions and services adequately serve the research needs of the faculty. This need is particularly pressing for disciplines that depend on collections of primary source materials, such as history.

Recommendation #17: Establish an advisory committee on the University computing infrastructure that represents the research community. The purpose of this recommendation is to ensure that the University computing infrastructure receives sufficient funding to serve the research community. This committee should be charged with formulating a vision and strategic plan for using computing technology at MU to enhance research and scholarship.

Recommendation #18: Offer affordable health care plans for graduate students. This benefit is essential to enable MU to recruit the highest caliber graduate students.

Recommendation #19: Use Mission Enhancement funds to ensure the areas targeted for enhancement are adequately served. Many of the recommendations on infrastructure will be quite costly. However, the ultimate success of the Mission Enhancement initiative will depend in part on having adequate infrastructure to support current areas targeted for enhancement, to attract the best new faculty and to retain productive scholars. We strongly support the recent decisions to use Mission Enhancement dollars in the short run for infrastructure needs such as space, research tools and support of intellectual capital. We believe that faculty retention and recruitment will be greatly enhanced in the long run by addressing these infrastructure needs.

III.G. Sabbatical, Development and Research Leave Policies

III.G.1. Background and Strengths–Sabbatical, Development and Research and Leave Policies

The University has several mechanisms for faculty to enrich their scholarship and engage in intellectual renewal. These include Sabbatical Leaves, Development Leaves, and Research Leaves. In addition, some departments arrange "modified assignments" for faculty members to free them from campus obligations for a period of time. We believe that these mechanisms are essential to the intellectual life of a university. Academic leaves and sabbaticals provide a means of professional development; opportunities to develop and nurture collaborative relationships; and opportunities to develop and disseminate new ideas, theories, concepts, and methods.

III.G.2. Issues and Problems-Sabbatical, Development and Research and Leave Policies

For a campus the size of MU, the total number of Sabbatical, Development, and Research Leaves taken in a given academic year is markedly low in both absolute and relative terms. The number of faculty on leave ranged from 10 to 14 per year between 1989 and 1998. The low amount of funding made available through the Research Council also suggests a very low rate of leave. The number of annual sabbaticals ranged from 7 to 15 per year between 1989 and 1998. MU has 1,200 regular faculty. In a fully subscribed sabbatical system, the University should expect at least 50 to 100 faculty on sabbatical at any given time, in addition to leaves for research and development.

III.G.3. Recommendations—Sabbatical, Development and Research and Leave Policies

Recommendation #20: Facilitate academic sabbaticals and leaves. Academic leaders should make faculty aware of leave and sabbatical opportunities on an annual basis and work with faculty members to facilitate academic leaves/sabbaticals.

Recommendation #21: Change the sabbatical policy to increase the likelihood that faculty members will use this leave mechanism. At present, sabbatical leaves provide only 50 percent salary support, regardless of whether a one-semester or two-semester leave is requested. We believe that the 50% salary support is a major disincentive to taking a Sabbatical Leave.

Tenured faculty members on general operating rate dollars who have demonstrated meritorious performance and productivity should be eligible for Sabbatical Leaves. Sabbatical Leaves should be one-semester at full pay or two semesters at 1/2 pay after six years (12 semesters). Alternatively, after three years of full-time service (6 semesters), faculty members should be eligible to take a one-semester leave at 1/2 pay. Salary support from external grants should be allowed to supplement the University's support to bring total support up to 100 percent. Semesters spent on Leaves should not count toward semesters accrued toward Sabbatical Leaves. Each time a sabbatical leave is taken (whether after 6-11 semesters or after 12 or more semesters), the semesters-toward-the-next-Sabbatical count is set to zero. Unlike Research Leave and Development Leave applications, Sabbatical Leaves should not go through competitive peer review but should be reviewed administratively.

A faculty member should present a specific plan of scholarly and/or creative objectives for the Sabbatical Leave that is deemed acceptable to his/her chair and dean. A final report describing how Sabbatical objectives were met would be required upon the completion of the Sabbatical.

Recommendation #22: Develop Sabbatical and/or Leave policies for faculty on direct service support. Recommendation #22 is relevant only to those faculty on rate dollars. It is recognized that for some schools, colleges, and units, faculty members derive much of their salary from direct service. Also, in some cases, extensive service is a part of a faculty position supported by rate dollars. At present, units with these types of faculty positions have difficulty funding even a part-time Sabbatical for deserving faculty members. The Committee recommends that deans, chairs, and directors work with each other and their faculty members to develop leave policies beyond the Research Leave and Development Leave in order to optimize the scholarly and creative accomplishments of department members. Concretely, this can involve semester-long or year-long modified assignments, setting aside funds to assist in funding a Sabbatical, etc.

Recommendation #23: Provide adequate funds for Research and Development Leaves. As with Sabbatical Leaves, one of the most important purpose of Research and Development Leaves should be to refresh and renew the intellectual vigor of the faculty. A review of these programs should be conducted to ensure this goal is being achieved. Furthermore, the Committee recommends that adequate funds for Research and Development Leaves be available so that all meritorious leaves can be funded.

III.H. Academic Leadership-Setting High Standards

III.H.1. Background and Strengths-Academic Leadership

The scholarly literature that examines the relationships between organizational factors and research activity identifies many essential elements that characterize productive research environments. However, none are as important as academic leaders who set high standards, serve as role models, demand accountability and provide appropriate rewards for success.

MU has many highly productive faculty scholars and is in the midst of hiring additional faculty through the Mission Enhancement initiative. These faculty have high potential for research productivity. The organizational structure and faculty tenure and promotion policies at MU provide a means for deans, chairs and research unit directors to both provide opportunities and set

high standards for research productivity through hiring and firing authority, the promotion and tenure process, and flexibility in workload distribution. Academic leaders can also allocate resources according to potential or actual research productivity. The faculty evaluation system in place provides a mechanism for ensuring that the research and scholarship contribution to school and department goals remains central to enhancing the quality and quantity of scholarly pursuits at MU.

The new budget allocation model that attempts to distribute institutional funds to the various schools according to productivity and a commitment to mission-based budgeting are both potential means of encouraging excellence in research and scholarship. These systems also provide opportunities for academic leaders at MU to expect excellence in research and scholarship.

III.H.2. Issues and Problems–Academic Leadership

III.H.2.a. Although most of these systems are in place, and in many instances academic leaders at MU do a superb job of using these systems to attract, retain and support outstanding research faculty, we found concerning evidence of a lack of consistency in the exercise of leadership in these arenas. Examples include:

- junior faculty who do not receive adequate resources;
- lack of start-up support for new faculty;
- lack of mentoring by senior investigators or scholars;
- failure to expend resources based on research potential and actual productivity;
- lack of accountability for research productivity, particularly at the time of the third year;
 review, at the time of tenure review, and post-tenure;
- policies that create disincentives by not providing salary savings from external awards to cover teaching and service activities; and
- a need for additional high-visibility recognition for outstanding researchers.

III.H.2.b. In some instances, we noted the placement of individuals who lack a strong scholarly track record in leadership role or who, once in leadership roles, abandoned efforts to maintain any substantive scholarly activities. This lack of scholarly orientation may lead these leaders to be less aware of or diligent about expecting a high level of scholarship among the faculty that report to them.

III.H.2.c. A significant workload issue is raised when the salary savings produced by external research funding is not available to support teaching or service activities by the faculty whose effort will be shifted to the funded research project. Faculty time devoted to external grants can decrease the resources and expertise necessary to maintain quality academic programs, especially in small departments. It is critical that salary cost-savings are appropriated to support these programs, otherwise the increased workload or loss of effort for teaching or service activities creates a potential disincentive to obtain external research grants.

II.H.3. Recommendations-Academic Leadership

Recommendation #24: Ensure high standards and accountability for research and scholarship among academic leaders. All academic leaders should embody high standards of scholarship. Only individuals with records of high achievement in scholarship, research, or other creative activity should be selected for academic leadership positions. Leaders who have been socialized and have established their credibility as scholars serve as good role models, can demand a high level of performance, and can hold faculty accountable. Academic leaders—especially department chairs—should maintain some scholarship or research activities and serve as role models for their faculty. We recognize that some academic leadership roles on campus require special skills in leadership, service experience or management expertise and that such exceptions to this recommendation may be appropriate. For example, extension activities have a strong service and community orientation.

Recommendation #25: Ensure high standards and accountability for research and scholarship at the department level. Departments/units and colleges/divisions should re-evaluate tenure and promotion expectations to ensure that research productivity has a prominent place. Specific goals for research productivity should be linked with resource allocation decisions (mission-based budgeting). Heightened opportunities should be created to buy out tenured faculty with performance inconsistent with division goals. Each chair should be required on a tri-annual basis to file a report to the dean on the measurable achievements by the department with respect to scholarship and research. The need for exceptions in heavily service-oriented units applies here as well.

Recommendation #26: Ensure resources, high standards and accountability for research and scholarship among all faculty. Job descriptions of all faculty should include specific expectations regarding research and scholarship; faculty appointments that do not include research and scholarship expectations should be the exception, and must be justified. Written documentation should be provided to assure appropriate start-up funds to support the research, scholarship and creative activities of new faculty. Written annual evaluations of probationary and tenured faculty should include research expectations, with increased emphasis on research progress at third-year reviews. The Office of Research, deans, center directors and chairs should encourage and facilitate mentoring of graduate students, post-doctoral fellows and junior faculty by senior faculty. Again, there are legitimate exceptions to this recommendation in which research, scholarship or creative activities are a small part of the mission of a particular unit.

Recommendation #27: Provide additional high-visibility recognition for outstanding individuals as researchers and scholars. The Provost should develop an additional, highly visible monetary award that recognizes outstanding researcher/scholars, similar to the Kemper awards for teaching excellence.

Recommendation #28: Encourage deans to return and/or invest salary cost savings within the department of the investigator generating these funds. Salary cost savings generated by external grants or contracts that cover investigator salary can be used to maintain academic programs and enhance the work of the faculty in the department. Getting an external award can be a negative experience if they are not and essential teaching and service activities are not covered by the salary savings from the external award.

III.I. Research at the Health Sciences Center

III.I.1. Background and Strengths-Research at the Health Sciences Center

The MU Health Sciences Center boasts a medical school; a nursing school; a health-related professions school; a university hospital; a cancer hospital; several community hospitals; and affiliations with a rehabilitation hospital, a veteran's hospital and a large network of outpatient practices in every specialty throughout the central Missouri region. Departments in the medical school are routinely among the top ten on the MU campus as ranked by external research funding. The School of Nursing has increased research productivity considerably over the past decade. Faculty in the medical school, nursing school and health-related professions collaborate in many interdisciplinary projects across the campus and with other institutions in the nation. Our Health Sciences Center provides access to human subjects and investigators in both basic and clinical sciences for interdisciplinary research.

Organizational relationships, geographic proximity and an abundance of external funding sources provide tremendous potential for both basic medical science, clinical research and population-based research at MU. Medical and life sciences are generally the leading sources of external funding at public universities such as MU, especially when the medical school is located on the main campus. For example, between 1994 and 1997, research funding at public medical schools located on the main campus averaged 24 million more external research dollars per year from the National Institutes of Health (NIH) when compared with public medical schools not located on the main campus. These differences are likely due to access to human subjects for research and the ability to establish interdisciplinary collaborative relationships to pursue NIH funding.

External funding available for health and medical research at the present time is at an all-time high. The budget of the National Institutes of Health, the largest and most successful medical research agency in the world, is over \$15 billion and grows each year. Other Department of Health and Human Services agencies, such as the Agency for Healthcare Research and Quality, the Centers for Disease Control, the Health Resources and Services Administration, also have increasing budgets for extramural research. Private foundations that fund medical research such as the Robert Wood Johnson Foundation have also grown enormously due to the boom in the U.S. economy over the past decade.

III.I.2. Issues and Problems-Research at the Health Sciences Center

Although many of the recommendations in this report are relevant to the Health Sciences Center, some are not. This particularly true of the School of Medicine. We received considerable feedback regarding disincentives from both chairs and research faculty at the medical school and from units on campus that collaborate or would like to collaborate with investigators in the medical school. We felt that conducting a special review of the Health Sciences Center was beyond our scope of work since we were charged as a campus-wide committee. But because of the tremendous potential for interdisciplinary research with a health sciences center on our campus, the magnitude of decline in research at our medical school, and the volume of feedback we received on this issue, we concluded that special attention needed to be drawn to this problem.

In 1997, thirteen public universities had medical schools located on the main campus; the MU School of Medicine ranked last in NIH funding among these medical schools. (Comparison figures for other sources of funding such as foundations and industry were not available.) Not only was MU ranked last, but the total NIH funding (\$6 million) was nearly five times lower than the next lowest ranked school (University of Florida at \$29 million) and was less than five percent of the highest ranked school (University of Washington at \$131 million).

A review of the number of NIH awards to the School of Medicine from 1970 to 1999 revealed that there was a steady increase from around 40 awards per year in the early 1970s, to a peak of 62 awards in 1993. Since 1993, the number of awards dropped precipitously to 34 in 1998, and 37 in 1999. There are presently fewer NIH awards at the School of Medicine than there were 25 years ago.

A commonly cited reason for the general decline of research at the medical school has been enormous upheaval in the healthcare system in the nation since 1993. The MU Hospitals and Clinics, which are staffed by medical school faculty, have focused intensely on clinical survival in the 1990s. This effort has been largely successful, but at the expense of the research mission. It is worth noting that during this same interval St. Louis University School of Medicine increased their number of NIH awards from 64 awards in 1993, to 80 awards in 1999. Washington University School of Medicine went from 376 awards in 1993, to 553 awards in 1999.

There are clearly factors other than changes in the healthcare system at work in the capacities for these medical schools to thrive while MU declined. Specifically, both of these schools have large endowments that appear to have buffered them adequately from financial stresses such that research has continued to thrive. In contrast, the low levels of state support for the indigent care burden for teaching and for research at the MU School of Medicine left the leadership and faculty vulnerable to the external pressures in the healthcare system to cut costs and increase competitiveness for patients. In 1998-1999, total medical school revenue (\$133 million) was at the 25th percentile for all state schools—about \$20 million less than schools with similar numbers of students.

Another dominant explanatory factor has been that the number of tenure-track junior faculty at the medical school has declined each year since 1993 from around 50 to approximately 30. At the same time, the number of non-regular, "clinical track" faculty increased from around 80 to approximately 140. Clinical track faculty are not expected to do research and typically spend all or most of their effort in direct patient care activities and teaching. This expansion has been positive for the clinical and teaching enterprises, but research productivity has fallen substantially and will continue to do so without a significant increase in entry-level tenure-track faculty.

Another major explanatory factor is that our medical school faculty is relatively small in comparison to other medical schools. The total number of full-time faculty is about one-third less than would be expected at other state medical schools of comparable student body size. One hundred additional faculty would be required to reach the 30th percentile.

In addition to these quantitative measures, we received considerable feedback from administration and faculty at the School of Medicine that reflected numerous disincentives for research, particularly among the clinical faculty. We know from the literature that leadership committed to

research, adequate time and support, and a culture that rewards research are correlated with research productivity. Each of these elements appear to have been relatively lacking in recent years at the medical school.

III.I.3. Recommendations-Research at the Health Sciences Center

Recommendation #29: The Vice Chancellor for Health Sciences and the Dean of Medicine should address the revival of research, especially clinical research, as a high priority. The recommendations in this report should be reviewed for applicability to the Health Sciences Center, especially the School of Medicine. We expect that some will be applicable; other problems are unique to the School and will require unique solutions. However, the major underlying factor in the decline of research has been competing demands in a time of great challenge, a small faculty, a low level of funding and a large shift from tenure-track to clinical faculty. A major effort should be undertaken to add research-oriented tenure-track faculty to redress the imbalance that has occurred in the last decade. This will require a significant infusion of financial resources. Attracting and retaining research faculty will also require a strong and consistent message from the leadership by example and behavior that research will again be valued equally with clinical service and teaching.

V. ACKNOWLEDGEMENTS

We wish to thank Jack Burns, Vice Provost for Research, and Tom Thomas, Associate Vice Provost for Research, for their invaluable guidance, assistance and input into our deliberations. We wish to thank Elizabeth Asmus, Administrative Assistant in the Office of Research, for assistance with organizing agendas and meetings, managing communications, keeping minutes and summarizing the large volume of feedback and suggestions we received from deans, chairs, and faculty.

We also wish to thank the deans, chairs, and faculty who responded to our surveys and who attended the feedback sessions following dissemination of this document at an earlier draft stage. We learned an enormous amount from both the survey responses and the discussions at the group meetings, and made significant changes in our recommendations based on this feedback.

V. ATTACHMENTS

V.A. Attachment A- Announcements, E-mail Survey Items

Exploring incentives for research

New faculty committee will evaluate factors that impact on MU's research productivity.

aculty at Mizzou have substantially increased the amount of external funding in recent years to help fuel the cutting= edge research that's under way in laboratories all across campus. Total research expenditures at MU have climbed 21 percent from the 1997 to 1998 fiscal years.

However, MU still lags behind other peer institutions in the amount of federal research dollars it generates. MU also contributes a larger proportion of campus funds for research than do its peer universities.

Provost Brady Deaton has appointed eleven leading research faculty to evaluate the incentives and disincentives affecting research productivity at MU, and to recommend policies on the expenditures of institutional research funds.

"Policy recommendations based on these evaluations are aimed at enhancing research productivity, and doing so in a manner that recognizes that research complements excellent teaching and high quality service in a public institution such as MU," says Jack Burns, vice provost for research.

The research incentive committee will examine policies and programs related to leadership and vision, hiring, and promotion and tenure priorities. The group also will examine the UM Research Board, the PRIME Fund, sabbatical and research leave policies, the MU Research Council, the master plan for research as it relates to use of "facilities and administration funds" — formerly known as "indirects" — and other current and potential incentives for the growth of external research funding.

"One of the main disincentives for research productivity that we hear about is a lack of money and research space to promote career development for faculty," says Bernard Ewigman, professor of family and community medicine and chair of the newly formed committee.

"Early career development is somewhat like tending a garden. If you don't nurture it and supply lots of water and fertilizer, it won't grow."

Another focus for the committee will be to look at faculty participation in sabbaticals, and research and development leaves. "Very few of our faculty take advantage of these opportunities; we're not sure why that is," Ewigman says. "Sabbaticals and research leaves can

revitalize and redirect a faculty member's scholarship. They are a very important component to a vital university community."

Recommendations from this committee will be used to implement the master plan for research through the Office of Research. This research master plan is a response to the first goal of MU's strategic plan: to strengthen research, graduate, and professional programs and improve Mizzou's stature among public institutions that belong to the Association of American Universities.

The complete text of MU's master plan for research can be found at: www.research.missouri.edu/masterplan.pdf

In recent years, research productivity at MU has not kept pace with other public AAU universities. For example, from 1986 to 1995 the average federal research expenditures at the 32 public AAU universities increased 103 percent. In contrast, federal expenditures at MU increased by only 62 percent, and for the UM System the increase was only 73 percent. In contrast, Iowa State University increased federal research dollars by 238 percent during the same period.

Consequently, MU has slipped in rank from 27th to 29th among public AAU universities by this measure.

Approximately half of all externally funded research at MU comes from federal sources. When all external sources are considered, including industry, state, local and other sources such as foundations, MU ranks 22nd out of 32 AAU institutions.

Finally, the proportion of research at MU funded by institutional funds — \$76 million, or 47 percent of all research expenditures — exceeds that of any other AAU public university. The average for all other public AAU universities is 20 percent.

"These observations lead to the conclusion that MU could invest institutional research dollars in such a manner that would increase overall external funding," Burns says.

Committee seeks faculty input

The research incentive committee seeks input from faculty through e-mail, contact with individual members, and by electronic questionnaires to department chairs. Members of the committee are:

- Bernard Ewigman, committee chair professor of family and community nedicine
- •Jerry Atwood, professor and chair of chemistry
- •Mel Blase, professor of agricultural economics
- •Gordon Christensen, professor of internal medicine
- •Vicki Conn, associate professor of nursing
- Charles Cowger, professor and director of social work
- *Bill Folk, professor and chair of biochemistry
- Paul Gader, associate professor of computer engineering and computer science
- Barbara Reys, professor of curriculum and instruction
- •Lela Riley, associate professor of veterinary pathobiology)
- •Ken Sher, professor of psychology
- •Jack Burns, vice provost for research
- •Tom Thomas, faculty fellow in the Office of Research
- •Elizabeth Asmus, administrative assistant in the Office of Research

Asmus, Elizabeth R.

From:

Westcott, Joan L.

Sent:

Wednesday, January 27, 1999 5:10 PM UMC RESEARCH All Faculty FW: Memo to All Faculty

To: Subject:

Importance:

To:

All Faculty

From: Research Incentives Committee

Date: January 27, 1999

Dear Faculty Colleague:

Provost Brady Deaton has charged the Research Incentive Committee with producing recommendations to enhance research. The Research Incentive Committee will examine policies and programs related to leadership and vision; hiring and promotion and tenure priorities; the Research Board, the PRIME Fund, sabbatical and research leave policies, the Research Council, the Master Plan for Research as it relates to use of Facilities and Administration funds (F & A, formerly known as indirects), and other current and potential incentives for the growth of external research funding.

We believe that the vision and steps outlined in the Master Plan for Research reflect serious commitment to building research capacity by the leadership on the Columbia campus. We see research and scholarship as essential and complementary to dynamic teaching and high quality service. As representatives of the faculty, we plan to review the present research environment, and make whatever recommendations we believe are needed to restore research as a full partner in our mission of research, teaching and service. If you wish to forward ideas, concerns or opinions about the topic of enhancing research productivity to the committee, please do so by sending an e-mail message directly to one of the committee members.

Thank you.

Members of the Research Incentive Committee

The Research Committee members include:

Bernard Ewigman (Chair) Family & Community Medicine ewigmanb@health.missouri.edu

Jerry Atwood Chemistry atwoodj@missouri.edu

Mel Blase Agricultural Economics blasem@missouri.edu

Gordon Christensen Internal Medicine christenseng@health.missouri.edu

Vicki Conn Nursing onn@missouri.edu

Charles Cowger Social Work cowgerc@missouri.edu Computer Engineering & Computer Science gaderp@missouri.edu

Barbara Reys Curriculum & Instruction reysb@missouri.edu

Lela Riley Veterinary Pathobiology rileyl@missouri.edu

Ken Sher Psychology sherk@missouri.edu

Jack O. Burns Vice Provost for Research Office of Research burnsj@missouri.edu

Tom R. Thomas Faculty Fellow Office of Research thomastr@missouri.edu

Elizabeth Asmus Administrative Assistant Office of Research asmuse@missouri.edu

This mailing was approved by IATS

Asmus, Elizabeth R.

From: Asmus, Elizabeth R.

Sent: Tuesday, February 09, 1999 5:18 PM To:

Mills, Dean; Logan, Robert A.; Thorson, Esther L.; Andrew Blanchard; Smith, Bea B.; Walker, Mills, Dean; Logan, Kobert A.; Horson, Estner L.; Andrew Bianchard; Smith, Bea B.; Walker, Bruce J.; Chair Glen Cameron; Claud Chastain; Dean Mills; George Chippendale; Buening, Gerald M.; Irvin Cockriel; James Thompson; Armer, Jane; Kornegay, Joe; Mitchell, Joyce A.; Dean, Kenneth D.; Evans, Kenneth R.; Wise, Kim; Hosokawa, Michael C.; Michael Obrien; Richard Andrews; Dowdy, Richard P.; Richard Schwartz; Robert Churchill; McCallum, Robert; Sharon Huntze; Payne, Thomas L.; Heinsz, Timothy J.; Rooney, Timothy; Toni Sullivan; Conn, Victir Milliam A.

Vicki; Altemeier, William A.
Burns, Jack O.; Thomas, Tom R.; Ewigman, Bernard G.
Survey sent to Department Chairs

Subject:

Ladies and Gentleman:

The following message from the Research Incentives Committee was sent to your department chairs on Friday, February 5 via e-mail and hard copy. As many of your are aware, the Research Incentives Committee has been charged with the task of reviewing and enhancing the current research policies at MU. This survey is one of the ways in which the committee is soliciting helpful advice and comments from all levels of faculty.

This memo is strictly for your information, no response is needed from you personally. Thank you for your time.

You should have received an e-mail message describing the background and membership of the Research Incentives Committee. We would like to ask you two questions to assist us in identifying factors that may enhance or inhibit research productivity in your department. We will compile the answers of the 90 department chairs on the University of Missouri-Columbia campus and use them in our deliberations over the next several weeks. Please answer as honestly as possible. We would like for your comments to be returned to Elizabeth Asmus at the Office of Research in 203 Jesse Hall (email:asmuse@missouri.com) by February 19. Let us know if you would like to receive a summary of our findings by e-mail. Please be very specific, very brief and state in order of highest priority.

- 1. What factors are the most important facilitators, enhancers or incentives of faculty success in conducting externally funded research and scholarship in your department? What does your department need most to increase the amount of externally funded research in your department in the next several years?
- 2. What factors are the most important inhibitors, detractors or disincentives of faculty success in conducting externally funded research and scholarship in your department? What will most likely limit your department in increasing the amount of externally funded research in your department in the next several years?
- . Would you like to receive a copy of the responses to these questions?

Thank you for your time and consideration in this regard.

10 February 1999

TO: University of Missouri-Columbia Department Chairs

FROM: Research Incentives Committee

RE: Survey

You should have received an e-mail message describing the background and membership of the Research Incentives Committee. We would like to ask you two questions to assist us in identifying factors that may enhance or inhibit research productivity in your department. We will compile the answers of the 90 department chairs on the University of Missouri-Columbia campus and use them in our deliberations over the next several weeks. Please answer as honestly as possible. We would like for your comments to be returned to Elizabeth Asmus, Office of Research in 203 Jesse Hall by February 19. Let us know if you would like to receive a summary of our findings by e-mail. Please be very specific and very brief and state in order of highest priority.

- What factors are the most important facilitators, enhances or incentives of faculty success in conducting externally funded research and scholarship in your department? What does your department need most to increase the amount of externally funded research in your department in the next several years?
- 2. What factors are the most important inhibitors, detractors or disincentives of faculty success in conducting externally funded research and scholarship in your department? What will most likely limit your department in increasing the amount of externally funded research in your department in the next several years?
- 3. Would you like to receive a copy of the responses to these questions?

Thank you! Members of the Research Incentives Committee

V.B. Attachment B-Excerpts of Survey Responses and Written Feedback

Following are quotes extracted from written feedback we received on the May, 1999 Preliminary Report and from written comments we received in response to announcements regarding the Committee's formation and purpose.

". . . this rather mean-spirited document into a more user-friendly, collegial document that shares ideas instead of barking orders at the stoop labor.

"Yet more red tape and demands for more reports won't improve the performance of department chairs. Accountability is vital, but accountability is there now. Trying to micromanage our work all the way down to the department level is just impossible.

"We need to let each college set its own policy. The 'one size fits all' approach to policy will not work.

"... if you want a first-class college, you gather together around you some good folks with good minds who like ideas and then get out of their way...

"We see almost nothing coming that nourishes the real core of this place—teaching young people to think and read and decide for themselves. We've succumbed to the place where the dollar rules and where campus life is described in terms of business and marketing and customers/consumers.

"I also suggest that you identify a group of senior faculty who have been here a long time and who have served as department chairs to review the draft. Ask them individually and specifically for their comments.

"This report's overall tone carries big science on a silver tray but it inadvertently or surreptitiously devalues teaching and hurts A&S, the most important college on the campus.

"In terms of my department, this report/proposal helps nothing."

-Department Chairman

"Although I am extremely pleased that the dollar cap will be removed from RIF, I am sorry to see that level has been put at 25 percent. This is too low. I would encourage you to raise this to at least 35-40 percent so that it can really do some good at getting research done. The more of this money that gets back to the investigators who have generated it the better. These are the people who have proven creativity and drive to make the best use of the RIF money.

"... I do not think that tenure or sabbaticals are an incentive to scholarly productivity.

"I am convinced that the money that the Division of Biological Sciences receives each year in RIF makes my colleagues and I able to compete effectively with labs from the top tier of research universities. I am equally convinced that without it, we would have no chance to compete and would long ago have become a third-rate department with essentially no meaningful research programs and no grant support. Our competitiveness can be increased even further if more of the RIF money is returned to the departments. I urge the committee to consider the above comments and adopt a policy to return as much money as possible directly to the departments that are responsible for generating the indirect costs."

-Professor

"Include a separate statement about sabbaticals for clinical faculty. Eligibility may be once every six years. Include an abbreviated sabbatical for 3-4 months at full pay. The Provost of Med School needs to have a pool of funds designed for such sabbaticals.

"In place of a researching chair, each department should have an assistant chair for research.

"... general feeling of the physicians was that the interests of the med center were not included in the document."

-Professor

"In discussions with administrators and professorial colleagues at MU and other institutions, no one seems to be able (or at least willing) to elaborate how such funds are utilized, with the exception of one institution.

"At MU there is always a negotiation for set-up funds that seems to take forever and I feel certain this fact works to the detriment of our campus recruiting efforts.

"The RIF monies in individual accounts is accumulated for bridging of lost grant support or to buy a costly piece of equipment.

"Were it not for the RIF within the past year, a project in my lab would have had to be discontinued.

"Many of the problems described in your report, such as the build-up of individual RIF accounts, could be alleviated by directing the vast majority of the F&A distribution back to the department, because then individual faculty would feel more secure and at the same time the money could be put to use, because there would be less reason to build a nest egg.

"I do however doubt that a 15 percent cut going to the Office of Research is needed to cover the administration of the grant proposal operation.

" \dots the Office of Research can not write proposals for faculty to increase their grant funding, but they can increase the number of patents and procure licensing.

-Professor

"I think that if this committee will have done a good job if we can produce three things:

- a) a few very productive policy recommendations that are responsive to their desires and needs, that have broad faculty, central administrative support AND are implementable financially
- b) a few boldly articulated principles that will help set the tone for reaching to the next rung
- c) language and the tone that celebrates the greatness of our research and scholarship, nails the key barriers and articulates the hope and promise for the brighter future that is coming.

"Now, having said all this, I have no question that some deans, chairs, and faculty will still grouse, but our goal is not to please everyone, it is to come up with the policies that will make the best possible use of our resources."

-Research Center Director

"While I would take exception to a number of statements in the report (especially the section that deals with the role of the department chair—a very heterogeneous group of folks as was pointed out . . .

"Does our system of grant submission and post-award management provide disincentives? Can we reduce the hassle factor? Can we give successful PIs more help with grant management?

- "... in the current round of rate budget reductions there were differentiations made by divisions. However, the criteria used to make those differentiations were based SOLELY on teaching performance (enrollment, SCH's generated etc). A division which had seen their grants go way up received no credit.
- "... encourage the submission of grants or modifying the curriculum to attract more students.

- "... I fear that more often than not research ends up being unrecognized in the institutional incentive systems.
- "... I can see no evidence that increasing our grant activity 3X over the past 7-8 years has done anything at all for my unit."

-Professor

"It is our challenge to try and overcome this [lack of confidence] with some positive recommendations that this administration can react to. I believe that RICOM is doing just that!"

-Vice Provost

"Extending sabbaticals should be based around merit and time of service, and surely should be for associate and above, but if we continue to punish non-regular faculty, they will lose their desire to participate. I can think of no valid reason to exclude non-regular faculty. I oppose this clause.

"The med school is only about 6 percent GO dollars overall. Most salaries are derived from clinical dollars, even in regular faculty. This will further restrict sabbaticals in the med school, unless sub-item I is supplemented from some other dollar source.

"Why limit this to regular faculty? Hold the non-regular faculty accountable as well."

-Professor

- "... on a regular basis since December.
- "Should you include the mission statement in the document?
- "Is this banking system a loan only? Repayment needs spelled out. Could it be a gift with no repayment required? -Unclear-
- "Cap was raised to \$5,000. Since budget increase will be minor next year, did not raise SRF."

-Professor

"I would note that in your first paragraph, you might say that RICOM was actually called into creation by the campus Strategic Plan rather than the Research Master Plan. The Master Plan simply reported this recommendation."

-Vice Provost

"The Medical School has a record of discouraging successful research."

"The faculty has only a small number of highly successful investigators to serve as research role models. Some successful investigators have been recruited but than left for other institutions; others have failed to prosper at the University of Missouri."

"A history of inefficient distribution of institutional support, meaning:

- Support (funds & space) often distributed on the basis of political concerns rather than strategic concerns.
- Support often distributed to 'cover all bases' rather than build on areas of strength. Deterioration of the research infrastructure and shortage of laboratory space . . . lack of effective institutional support, history of institutional and professional infighting, a history of poor administrative support, overload of research faculty with clinical and administrative duties, failure of academic leadership to engage in strategic development of resources and lack of a vision for institutional research development."

-Professor

"... that some portion of the indirect cost from grants needs to be dedicated to enhancing the research computing infrastructure of the University of Missouri-Columbia.

"Various items that would be useful to be covered here would include: (1) basic data network and Internet 2 research network, (2) computing resources for storage or computational needs, (3) specific software that would benefit a group of researchers (perhaps the GCG software for molecular biology research would fit here or the campus-wide site license for SAS or SPSS software), and (4) support staff to keep the infrastructure operational.

"... research results that are promised as a 'deliverable' on grants and contracts or other research vehicles. These same infrastructure needs are essential for keeping our Research I status and collaborating with colleagues around the world."

-Associate Dean

"... there is scholarship ON interdisciplinary research that, at least in the long run, should not escape our individual and collective attention. I do not claim expertise or extensive experience in interdisciplinary research . . ."

-Professor

"This is a note to strongly endorse the goal to restore research as a full partner in MU's mission of research, teaching, and service. I think research has been in the back sear of MU's priorities for too long, if we want to be a first-class university.

"Without the enthusiasm for a subject generated by research, without the expertise and dedication to take students to the frontier of charted territory, teaching runs the risk of becoming mechanical, uninspiring, and a regurgitation of what is in the textbook that others have written.

"Teaching and research should not be perceived as antagonism, as many tend to view them, but as a powerful synergism."

-Professor

"I don't think we will move ahead in research in the medical school if we can't change the perception that research should be done only in the research departments.

"I am particularly concerned about the prevailing opinion that any money made by clinical departments should go into incentive for clinical faculty and that putting any money into research is taking money out of the pockets of the clinical faculty.

"The Basic Science Research Division of the Department of Ophthalmology . . . no longer has the space to run its unit, and is being forced to find additional space across town. I would suggest that the facility needs for this unit should be a high priority if this unit is to flourish and not decline.

"The failure of medical school clinical departments to provide adequate support for faculty on tenure track is a critical issue. Many clinical departments operate as if serious research can be undertaken without adjusting the clinical, teaching, and administrative responsibilities.

"I suggest a medical school-wide clinical-researcher compact. This would guarantee a secretary and stipulated research start-up funds to anyone of associate and full professor status, and would encourage this provision for assistant professors, with one-and-a-half to two days per week dedicated and protected research time to be guaranteed. A salary adjustment to be provided for the first three years of appointment, when research funding would be anticipated.

"The present system with research responsibilities but an absence of tangible support for faculty with medical school tenure-track appointments must be changed. It is grossly inefficient and not very responsible."

-Associate Professor

"Space is consistently a problem.

"There is insufficient biostatistical help and one of the biostatisticians is leaving (received a better job). Initial word from Biostats is that they don't have the money to pay recruits to come interview! Biostatistics should be moved out of ITS and put under the SoM Office of Research.

"There is no policy regarding the disbursement of RIF at the department level . . . On the other hand, the current 'off-campus facilities and administration funds' rates are relatively low and help researchers accomplish more per dollar than researchers from institutions with higher rates. The 'on campus' rate is too high.

"... the push for clinical revenue generation is significant. We have a long history of having to do more clinical work than would be 'allowed' if grant salary support were considered. Young faculty have a tough time completing research because of clinical demands."

-Associate Professor

"Access to scholarly journals is essential to our research mission, yet we are seeing continued calls to eliminate journals from our library shelves. We have already eliminated, or never took, numerous journals which are considered required reading in major fields of science. If we are to enhance our research mission we must change this trend. Online services and interlibrary loans are not a substitute for ownership of journals."

-Associate Professor

"As a scholar in the humanities, . . . the lack of external grants and the restrictions that some of them entail impose severe limitations. I would like to see MU develop incentives designed to remedy the situation . . . or remove . . . the International Travel Grant blocks a potential candidate from reapplying if he/she received an International Travel Grant in the last two years from the date of the application, requires an extensive and, in my view, useless description of how reading a paper at a conference will enhance someone's career, and restricts the number of applicants by establishing deadlines whose time frame is often difficult to reconcile with the actual travel dates. It would be splendid if your committee could do something to eliminate some of these obstacles, or better yet, create new ways to enhance travel to professional meetings. If one of the categories by which we are evaluated at the end of the year is the number and the quality of papers presented at conferences, the University should do everything in its power to provide the means."

-Associate Professor

- "Research quality is the track-record of the given scholar in getting grants. In the humanities and fine arts, however, that is far from the case."
- " \dots one, and only one, incentive for faculty in the humanities and fine arts to seek outside funding: release time."

-Professor

"The UC system has a scale of promotion both at the associate and the full professor levels, which monitors progress beyond tenure, and enables the individual to move up towards, or

beyond, the full professor level in a way which encourages the faculty to be productive until retirement. Maybe MU could look into that.

"I think the Provost's Office could do much more . . . to study and implement more spousal accommodation for candidates here, whether on the economy or within the academy; We do lose good faculty whose spouses just can't get anything here. The University needs a policy and candidates need to see we have one. The Ag school, (okay, it's awash in money, but this is just one idea) for instance, wanted a candidate from UC Davis so bad that they offered to pay his spouse's salary as an instructor in our department until she got tenure. She got it. Everyone happy.

"There should be regular sabbaticals at full pay. Say, one semester every four-five years, and teaching could be doubled up or whatever, so that the department doesn't lose and courses are covered."

-Associate Professor

"... by far the largest incentive to increased funding is a larger RIF return. The connection is so direct.

"First, I will admit that the 25 percent level is probably commensurate with the amount returned at many other Research I institutions; however, there is a vitally important reason that MU's return should be much higher. The idea of adopting a RIF policy originated from discussions in the Research Council in the late 1970's, under the leadership of Ron Barr, Associate Dean of the Graduate School. We were appalled at the low level of external funding. Through his data, we became convinced that one reason for the success at University of Illinois Champaign-Urbana was the build-up of infrastructure by means of a liberal RIF policy that had been in place for 50 years.

"For this institution, over the next decade or more, should have a RIF rate of at least 50 percent. These funds should be returned to its departmental faculty, or some combination of faculty and college dean.

"Adequate start-up funds for new faculty. Adequate funds help in attracting the best faculty. The quality of new faculty is an absolutely critical factor in future funding and scholarship.

"Our highest departmental needs for increasing the amount of externally funded research in our department over the next several years are an increased number of faculty lines.

"Our small size has limited the scope of our departmental programs; we must focus on maintaining our basic instruction and research programs. As a practical matter, we have insufficient time to engage in other activities that could be quite productive, such as the development of group proposals to garner external funding.

"Adequate matching funds are necessary."

-Professor and Chair

- "... we need to make Research at this institution a POSSIBILITY for more than a handful of already-established investigators. The only way I can imagine this occurring is to institute Mission-based Budgeting or whatever other label is placed on a mechanism to pay faculty for the time they spend on teaching students and doing research in the College of Medicine."
- "... the MU Animal Care and Use Committee ... found a discrepancy between the care of a few, 6 or 8 mice, and the care described in the ACUC-approved protocol and contacted the PI. The PI... sacrificed the mice ... and gave away the uninvolved portion of the colony,

rescinded an order for reagents, and vowed to abandon the project entirely. This person was devastated.

"... this relatively new faculty member was given a small amount of research support funds upon arrival to MU to start a research program, but NO TIME was allotted for this research... because of an excellent clinical acumen and manner with patients, as well as ability and willingness to teach, this person has perhaps the largest patient burden and/or spends proportionately more time w/ the patients and house staff than others in the division.

"If Research is to flourish in this College, the deans, department chairs and division chiefs must ensure that faculty have the Physical (Time and Money) and Moral (if not Mentoring, at least not Obstructionism) Support to be creative and do fundable research.

"Whatever the Research Incentives Committee can accomplish to help our alreadyinspired, but overburdened colleagues such as this one, will be a giant step ahead. No amount of Incentive will start a creditable research effort if the Inspiration is not there already. Research equipment, space, and supplies are for naught if there is no time for thought and inspiration to make creative use of them."

-Professor

V.C. Attachment C-Letter with Recommendations Regarding the Research Board



School of Medicine University of Missouri-Columbia

Bernard Ewigman, M.D., M.S.P.H.
Professor, Director of Research,
Director of Academic Family Medicine Fellowship,
and Director of the Center for the Science of Family Medicine
Department of Family and Community Medicine
MA303 Health Sciences Center, DCO32.00
Columbia, MO 65212

Telephone (573) 882-4992

Fax [573]884=4122

EwigmanB@health.missouri.edu

March 1, 1999

Brady Deaton
Provost
114Q Jesse Hall
University of Missouri-Columbia
Columbia, MO 65211

Dear Provost Deaton:

The Research Incentives Committee (RICOM) has been charged with evaluating and making recommendations about current and future opportunities for enhancing research on the MU campus. As part of fulfilling this charge, we have reviewed current policies of the Research Board on facilitating research and scholarship at MU, with a specific emphasis on increasing extramural research funding. The primary concern of the RICOM is that the investment of Research Board funds has not paid off in terms of external research awards. We are aware that changes to the Research Board are currently under active consideration and are likely to be enacted before our committee's final recommendations. For that reason we are sending this letter to you now.

First, like the external review panel that evaluated the Research Board last fall, the RICOM endorses the concept of the Research Board and recommends its continued operation.

Second, the RICOM affirms the Research Board's commitment to junior investigators at the early stages of their careers. Indeed, the RICOM believes that only under exceptional cases should funding be provided to individuals at the advanced assistant professor level (5th year or higher) or above.

Third, senior investigators should be considered for funding only when they have a clear and convincing track record of recent external funding and need these resources to stimulate a new area of research. It seems unlikely that senior investigators without prior external funding success would succeed in obtaining it in the future.

Fourth, it is recognized that one category for Research Board funding is "excellent scholarship in areas where sources of extramural funding are extremely limited." As noted by the external review, it appears that this provision may have actually served to undermine the search for external funding by faculty in certain sectors (e.g., the Humanities). The RICOM recommends that applications in this category be considered only when:

(1) they are accompanied by a parallel application to an appropriate external funding agency (e.g., NEH,

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ACLS), or (2) no possible external sources of funding can be identified (and in the absence of relevant funding sources is carefully documented in the application).

Fifth, the Research Board currently supports research funding under four categories: (1) young scholars with great promise, (2) faculty pursuing innovative directions, (3) excellent scholarship in poorly funded areas, and (4) special research opportunities with great potential payoffs. It is recommended that, for evaluation purposes, each of these areas is considered separately when estimating the return on investment. This is because the hoped-for returns are likely to vary greatly across categories, and genuine success in categories 1,2, and 4 could be masked by (an expected) low rate of return from research in category 3. Faculty completing applications to the Research Board should designate the category that best fits their proposal.

Sixth, related to these four funding categories, the Research Board should consider pre-allocating a level of funding for each category in accord with strategic planning goals. This is one way to maximize the likelihood that the portfolio of Research Board-funded projects is consistent with the intent and priorities of the Research Board.

Seventh, application materials should elicit detailed information about the nature and extent of previous Research Board funding. Previously funded investigators should be considered only when the earlier award has demonstrated outstanding productivity.

On behalf of the members of the Research Incentive Committee members,

Sincerely,

Bernard Ewigman, M.D., M.S.P.H.

Chair, Research Incentive Committee

Cc: Members of the Research Incentive Committee

Jack Burns, Ph.D. Tom Thomas, Ph.D.

Elizabeth Asmus

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