



2004-05 Master Plan for Research and Technology Development

Our Mission

The Office of Research exists to foster an academic environment in which MU's research, instruction, service, and economic development missions are permeated by the joy and rigor of original research, creativity, and scholarship. The Office of Research promotes an environment in which the intellectual and creative activities and achievements of MU's faculty, students and staff are facilitated, celebrated and, when appropriate, transferred to the private sector.

Our Goals

Goals of the UM System and MU campus strategic plans share the vision of a "premiere world-class," "destination university for exceptional and richly diverse students, faculty, and staff." Five of the six strategic themes for the UM System include goals that impact the research enterprise at MU. Some of these are familiar: investing in selected programs, enhancing interdisciplinary research, leading in the life sciences, fostering economic development, improving the infrastructure. Others, however, will give us pause this year as we develop plans for their achievement by 2010: hiring and retaining an additional 10 National Academy members, improving compensation for faculty and staff, building the highest quality information technology infrastructure, securing \$400 million in annual external research funding. For the MU campus, these goals translate to seven additional National Academy members and \$300 million in annual external research funding.

The campus plan speaks to our stewardship of a "priceless state resource" as a land-grant university for the 21st century that offers a new model for a university in the public service, a public-private partnership university. Our land-grant status carries a unique obligation to improve the civic, economic, health and educational well-being of all Missourians. Several recurring themes in the campus plan are reflected in this year's Master Plan for Research and Technology Development: research incentives, research infrastructure, technology transfer, recruitment and retention of top faculty, and external funding for research and creative projects.

Like the campus plan, this Master Plan for Research and Technology Development is not a summary of all that we currently do or of all the great things we hope to do. Instead, it is a tightly focused set of high-priority tasks for the current year. Research Division goals for the 2004-05 academic year have been chosen to build on existing strengths while also addressing areas of need. Accomplishing these tasks are important steps for ultimately growing the quantity, quality and stature of MU research, consistent with the broader campus and System goals.

- Goal 1: Provide top-notch services and compliance functions that enhance the ability of MU faculty to do research, creation, scholarship, and innovation.
- Goal 2: Create a research-centered academic and educational environment by developing connections between the research enterprise and all of the institution's other activities and by creating a broader foundation for research support with internal and external stakeholders.
- Goal 3: Develop and promote investment strategies to financially sustain and grow the research enterprise in order to allow students access to a great faculty and state-of-the-art facilities and to ensure that MU research continues to enhance the lives of people in the state, nation and the world.

Office of the Vice Provost for Research

Mission: The Vice Provost for Research is responsible for implementing the entire mission of the Office of Research as described on the previous page. The Vice Provost oversees MU's \$217,000,000 research enterprise including sponsored program administration (both pre- and post- award); intellectual property management and technology transfer; compliance for animal care, human subjects, research integrity and export controls; campus-wide undergraduate research programs (jointly with the Vice Provost for Undergraduate Studies); services and funding for faculty researchers including a network of grant writers, as well as matching funds and research seed money that enhances the competitiveness of MU faculty; research publications including the award winning research magazine, *Illumination*; and several interdisciplinary research centers including the MU Research Reactor, the new Life Sciences Center; the Dalton Cardiovascular Research Center; the Center for Arts and Humanities; the Center for Excellence in Aging, the Missouri Resource Assessment Partnership; the Health Activity Center, and the Center for Religion, the Professions and the Public. The Vice Provost also oversees the campus-wide Biomolecular Core Facilities that provide cutting edge instrumentation for researchers across campus. The objectives below are specifically the responsibility of the Vice Provost. Many other critical objectives are listed as the responsibility of various units that report to the Vice Provost, but the Vice Provost is ultimately responsible for ensuring that those objectives are accomplished.

- Establish a faculty committee that will advise the Vice Provost for Research on issues related to increasing the recovery of facilities and administrative costs and how to optimize the allocation of resource investments, such as the Research Incentive Fund (RIF), into enhancing research infrastructure and research performance.
- Continue to clarify the concept of a “research center” at MU and how the success of centers should be evaluated. Ensure that the Life Science Center, the Dalton Cardiovascular Center and the MU Research Reactor invest their resources wisely and generate outcomes of increased research performance and that they effectively communicate their performance to both internal and external stakeholders.
- Work with the School of Medicine and the Dalton Cardiovascular Research Center (DCRC) to integrate diabetes and cardiovascular research across campus. Hire a Director of the DCRC with the skills to foster this integration.
- Coordinate the federal relations process to prioritize campus needs, and to develop a reporting process that allows us to determine the relative success of federal initiatives.
- Account for returns on investments in the PRIME, Research Council and Research Incentive Funds.
- Work across the campus to develop new interdisciplinary efforts in nanoscience, bioinformatics, aging, and geospatial informatics.
- Work with the Vice President of Government Relations to develop and promote plans for enhancing the life sciences infrastructure at MU in a manner that returns value to the State.
- Work with the incentives committee and SPRAC to develop a coherent framework for incentive plans that can facilitate more entrepreneurial activity by MU faculty.
- Create a mechanism to increase industry-sponsored research.
- Communicate MU's role as a research university internally and to external stakeholders such as the Missouri Legislature, the Missouri Coordinating Board of Higher Education, the UM system, and the general public.
- Coordinate the Office of Research plan with the campus and UM System strategic plans and strategic initiatives as they relate to the research enterprise.
- Keep an ongoing open dialogue with faculty across campus to identify any institutional barriers to conducting research and then to act promptly to remove or minimize those barriers.
- Enlist a full review of campus-wide core facilities by MU faculty to ensure their sustainability and efficiency in supporting faculty research.

Office of the Associate Vice Provost for Research and Director of Compliance

Mission: Supervise compliance activities and computing services and support the Vice Provost for Research.

- Begin the process for accrediting MU's Institutional Review Boards with AAHRPP.
- Continue oversight of clinical trials compliance, including the issues of surrogate consent and billing audits of clinical trials.
- Implement a new model for self-sustainability of clinical trials compliance functions.
- Develop and implement more user-friendly oversight of behavioral research involving human subjects.
- Support the welfare of animal subjects through acceptable per diem charges, a plan to improve animal research infrastructure, and campus-wide accreditation by AAALAC.
- Improve understanding of export control legislation and its impact on MU research activities.
- Update Conflict of Interest disclosure practices, including development of a policy for institutional conflict of interest.
- Develop a plan for plant growth facilities that ensures their continuing ability to support MU research.
- In conjunction with the Graduate School, develop a campus plan for training in the responsible conduct of research.

Office of Research Faculty Fellow

Mission: Help with Office of Research programs for internal grants, planning, and faculty committees which facilitate and aid the research enterprise of the campus.

- Advocate for the faculty vis-à-vis the Research Council and facilitate revisions of Research Council policies and procedures.
- Develop a clearinghouse for "broader impact" activities underway at MU.

Office of Technology and Special Projects

Mission: The University of Missouri will have a flourishing technology transfer and commercialization program—recognized as a national leader—in which faculty and OTSP staff are fully engaged in an integrated technology transfer program of disclosure, development, patenting, licensing; and a fully evolved entrepreneurial infrastructure supporting home-grown technology companies. The University will be recognized as a full partner in technology-driven economic development and an attractive partner for corporate R&D.

- Reorganize OTSP into Intellectual Property Management and Entrepreneurial Support divisions.
- Enhance the OTSP website to render it more useful to our customers.
- Begin building a technology incubator and support program.
- Integrate operations of OTSP and other campus units involved in economic development.
- Enhance relationships with venture capital firms, especially those based in Missouri.
- Implement a technology development fund.
- Select and implement a database management system that will serve as a tool for more effective management of intellectual property and more effective communication with the faculty.
- Begin development of a revised patent policy and an intellectual property policy for software.
- Enhance communications with faculty through various venues and throughout the patenting and licensing processes.
- Develop OTSP standard agreements and streamlined forms and procedures.
- Work with the UM Conflict of Interest Committee to clarify and streamline COI processes.
- Enhance OTSP performance outputs on such metrics as invention disclosures, patent applications, issued patents, options and licenses signed, licensing income, and start-up companies.

Office of Sponsored Program Administration

Mission: The Office of Sponsored Program Administration enhances and facilitates the University's scholarly activity and external funding by providing service to all persons involved with externally sponsored programs in a timely and professional manner and by protecting the University's investment in scholarly activity.

- Continue to support the day-to-day administrative and project support needs of the grants enterprise.
- Develop a model sponsored program administration operation by moving toward more proactive operations and meeting research community needs.
- Provide leadership to make PeopleSoft Grants upgrade a net gain for the research community.
- Implement an effective training program for efficient utilization of administrative tools and processes to conduct sponsored projects.
- Respond to special requests for data.
- Prepare for funders' implementation of electronic submission processes.
- Provide the administrative infrastructure to enable interested faculty to conduct classified research.
- Strengthen understanding of the OSPA service role.
- Communicate the cost of doing research and its relationship to the institution's F&A rate and F&A recovery.

Office of Undergraduate Research

Mission: The Office of Undergraduate Research facilitates collaboration among existing undergraduate research programs, promotes undergraduate research to internal and external audiences, and encourages new initiatives to create and enhance undergraduate research opportunities at MU.

- Direct and grow the spring and summer Undergraduate Research and Creative Achievement Forums.
- Implement and grow the new MU Undergraduate Research Scholars Program.
- Raise awareness among non-science faculty members of opportunities to involve undergraduates in research and creative activity.
- Promote faculty awareness of the "student opportunity posting" website.
- Create and disseminate to NSF-funded faculty a template for requesting RU supplements.
- Increase the number of grant proposals in which the Office of Undergraduate Research participates.
- Involve students in the process of communicating with external audiences about MU's research environment.
- Compile data on the number of students engaged in faculty-mentored research at MU.
- Enhance marketing to faculty and students, including plans for a full-color brochure.

Office of Grant Writing and Publications

Mission: The Office of Grant Writing and Publications supports MU faculty by helping obtain external funding, building capacity and awareness, and celebrating research and scholarly endeavors.

- Maintain and enhance the quality of the print and electronic versions of *Illumination* and other research publications to communicate about MU research.
- Develop an electronic repository of research images.
- Continue to grow the grant writer network to better support faculty research.
- Continue to help faculty produce interdisciplinary grant proposals.
- Facilitate the discovery and dissemination of information about funding opportunities, including limited submission opportunities.
- Encourage development and facilitate implementation of grantsmanship training opportunities.
- Create a searchable, Web-based model proposal file.
- Work with the Development Office to cultivate corporate and foundation grants.