

# LEGISLATIVE AUDIT DIVISION

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## MEMORANDUM

**TO:** Legislative Audit Committee Members  
**FROM:** Angie Grove, Deputy Legislative Auditor  
**DATE:** August 2008  
**CC:** Dr. Sheila M. Stearns, Commissioner of Higher Education  
Cathy Swift, Chief Legal Counsel, OCHE  
Dr. Geoffrey Gamble, President, Montana State University  
Dr. George Dennison, President, The University of Montana  
**RE:** Performance Audit Follow up (08SP-022): Montana University System Research and Development (orig. 06P-05)  
**ATTACHMENT:** Montana University System Research and Development Summary

### INTRODUCTION

In November 2006, we presented our performance audit of the Montana University System Research and Development. The audit made six recommendations to the Board of Regents (BOR), two recommendations to the Montana University System (MUS), and one recommendation to The University of Montana – Missoula (UM-Missoula). In April of 2008, we began gathering information from the Office of the Commissioner of Higher Education (OCHE) and MUS units on the progress in implementing the recommendations. This memo summarizes the results of our follow-up work in addition to presenting background information on the program.

#### **Overview**

Audit recommendations focused on improving the administration of research, the effectiveness of technology transfer functions, and the role of the BOR in university research and development (R&D) activities. Varying degrees of action have been taken on each of the nine recommendations. Out of the six recommendations directed to the BOR, four have been implemented and two are being implemented. The two recommendations directed to the MUS have been implemented and the recommendation directed to UM-Missoula has also been implemented.

The implementation of report recommendations appears to have improved the BOR role in MUS R&D, the communication between faculty and staff at the research universities, and allowed MUS units to have a consistent means of tracking and quantifying technology transfer activities.

## **BACKGROUND**

A performance audit of the management of R&D activities at the MUS units was prioritized by the Legislative Audit Committee for the 2005 biennium. R&D is the process of conducting research and identifying practical applications for the results. Increasingly, universities are recognizing the economic benefits of commercializing research through the process of technology transfer. Audit work addressed policies and procedures adopted by the MUS units in relation to R&D activities, assessed the effectiveness of research administration, evaluated the security of intellectual property assets, reviewed the economic benefits of these activities, and compared the management within the MUS with peer institutions around the nation.

## **FOLLOW-UP AUDIT FINDINGS**

The audit report included six recommendations to BOR, two recommendations to MUS, and one recommendation to UM-Missoula. The following document summarizes follow-up audit work and the implementation status of each recommendation.

### **Recommendation #1**

**We recommend the Board of Regents ensure consistent reporting of data relating to research activities on MUS campuses.**

#### **Implementation Status – Implemented**

To address this recommendation BOR established policy to require UM-Missoula and Montana State University-Bozeman (MSU-Bozeman), as representatives of the affiliated campuses, to submit an annual report to the Commissioner of Higher Education. The first report from campuses was submitted at the March 2008 BOR meeting. The report summarized research and technology transfer activities for the previous fiscal year. Also included was data related to technology transfer goals outlined in the campus strategic plans. Data in the report included, but was not limited to, R&D expenditures, the number of patents issued, total active licenses, and the amount of reimbursed patent costs from licenses.

### **Recommendation #2**

**We recommend the Board of Regents through the Office of the Commissioner of Higher Education coordinate the use of information systems within research administration functions.**

#### **Implementation Status – Being Implemented**

While MUS units have provided the BOR with consistent information required by policy, as addressed in the original audit, UM-Missoula maintains two separate information systems for pre-award and post-award functions. Maintaining these separate systems involves additional time and effort for staff. The university currently still uses two separate information systems; however, we consider this recommendation as “being implemented” because a committee has met and is reviewing the functionality of implementing BANNER into its pre-award function.

### **Recommendation #3**

**We recommend The University of Montana –Missoula assign pre-award staff within the Office of Sponsored Programs by departmental specialization.**

#### **Implementation Status – Implemented**

Effective March 1, 2007, UM-Missoula has assigned pre-award staff by departmental specialization. According to university staff it is now easier for faculty to identify their contact at the Office of Research and Sponsored Programs (ORSP) for both pre-award and post-award grant management activities.

#### **Recommendation #4**

**We recommend Montana University System universities:**

- A. Develop and implement mandatory training content addressing core elements in research; and**
- B. Provide faculty and staff with additional training opportunities as needed, related to specific subjects relevant to different aspects of the administration and management of research programs.**

#### **A) Implementation Status – Implemented**

The BOR adopted policy requiring campuses to establish mandatory training programs for faculty and researchers who regularly engage in research activities. During follow-up work, we found universities had developed mandatory training programs. These programs included information related to compliance with laws and regulations applicable to university research, and institutional policies and procedures governing research. Based on discussions, the majority of faculty and researchers have attended the training. Training will be conducting on an on-going basis, with new faculty and staff receiving training.

#### **B) Implementation Status – Implemented**

UM-Missoula is currently offering National Council of University Research Administrators (NCURA) videoconferences to faculty and staff. These videoconferences are optional. Videoconference topics include managing cost issues, effective proposal development, complex agreements, customer service for research administrators, and project revisions and cost transfers. MSU-Bozeman also offers optional training. Topics include electronic proposals, various roundtable discussions, and BANNER training. Additionally, changes were made to BOR's conflict of interest policy and campuses are conducting conflict of interest training.

#### **Recommendation #5**

**We recommend the Montana Board of Regents address its role in the process of direct congressional appropriations by:**

- A. Identifying information relevant to earmark funding to be compiled by universities; and**
- B. Becoming more involved in the understanding and review of these funding sources.**

#### **A) Implementation Status – Implemented**

UM-Missoula and MSU-Bozeman, as representatives of the affiliated campuses, are required by BOR policy to submit a report of earmark requests to the Commissioner of Higher Education. The report must include any request the units anticipate submitting to Montana's congressional delegation for inclusion in the federal budget. This report allows OCHE to be informed about funding requests presented from the MUS units.

#### **B) Implementation Status - Implemented**

Once the earmark report is reviewed by OCHE, the information is presented to BOR. The first earmark report was presented at the March 2008 BOR meeting. This annual report will allow the BOR to play a more active and informed role in the MUS units' research activities.

**Recommendation #6**

**We recommend the Board of Regents revise timeframes for technology transfer processes outlined in policy number 401.2.**

**Implementation Status – Implemented**

BOR Policy 401.2 was revised effective June 1, 2007 to lengthen the timeframes for the technology transfer processes including:

- ▶ Timeline for a campus to inform an inventor in writing whether it plans to secure the patent or release the discovery to the inventor was increased from 60 days to 18 months.
- ▶ Timeline for the preliminary patent search to be started from the date the matter is presented to the campus was increased from 9 months to 18 months.

Based on interviews with university staff these changes have allowed them to process inventions and patents within timelines set by BOR policy.

**Recommendation #7**

**We recommend Board of Regents through the Office of the Commissioner of Higher Education work with universities to review and refine methodologies for capitalizing intellectual property as intangible assets.**

**Implementation Status – Being Implemented**

The Governmental Accounting Standards Board (GASB) issued statement number 51, Accounting and Financial Reporting for Intangible Assets on July 10, 2007. The primary objective of this statement is to provide users of financial statements with more complete and comparable information about intangible assets used in government services. OCHE will be working with campuses during fiscal year 2009 to implement consistent accounting methodologies for capitalizing intellectual property. Implementation of GASB Statement No. 51 is required for periods beginning after June 15, 2009.

**Recommendation #8**

**We recommend units of the Montana University System ensure technology transfer issues receive sufficient emphasis in training provision by:**

- A. Including direct and specific information on technology transfer issues in mandatory training for principal investigators; and**
- B. Developing subject specific optional training content on technology transfer issues.**

**A) Implementation Status – Implemented**

While training is on-going, both MSU-Bozeman and UM-Missoula have incorporated technology transfer issues into mandatory principal investigator training. Topics vary from types of intellectual property to patent valuation and marketing. The majority of principal investigators have attended the mandatory training.

**B) Implementation Status –Implemented**

MSU-Bozeman offered optional training in October 2006 that covered patenting, material transfer and confidentiality agreements, sponsored research and royalties, and policies pertaining to intellectual property. Additionally, in May 2007 MSU-Bozeman brought in outside patent attorneys who presented information on the patenting process and recent developments in patent law. UM-Missoula offers similar

training related to technology transfer issues, however it is on a requested basis. Training is also completed individually upon request.

**Recommendation #9**

**We recommend the Board of Regents develop a system-wide approach to technology transfer issues by:**

- A. Requiring universities to incorporate technology transfer functions in long-range planning initiatives; and**
- B. Developing standardized means of assessing progress in meeting technology transfer goals.**

**A) Implementation Status – Implemented**

BOR Policy 401 provides BOR adopt goals for research and technology transfer as part of its strategic plan. The BOR's current strategic plan includes goals for research and technology transfer. BOR's Goal II states, "establish collaborative programs among institutions, the private sector, and the state to expand research, technology transfer, the commercialization of new technologies, and the development of our entrepreneurs." As part of this goal, BOR objective is to "Increase research and development receipts and expenditures." Additionally, MUS units have incorporated research and technology transfer components into campus strategic plans.

**B) Implementation Status – Implemented**

To develop a standardized means of assessing progress in meeting technology transfer goals, BOR requires annual reports from the research campuses. Reports include information on technology transfer activities including, but not limited to, the number of patents issued, number of active licenses, and patent revenues. OCHE reviews this data for purposes of assessing progress in meeting campus and system goals.