Fall Roundtable October 19, 2004 Plymouth Bluff

The purpose of the 2004 fall roundtable was to advance research at Mississippi State University by discussing its strengths and weaknesses. From the discussion, hopefully new ideas would emerge that would lead to new initiatives.

Three major topics dominated the discussion: 1. How to increase the number of patents and copyrights issued at MSU; 2. How to increase the number of business initiatives at MSU; 3. Does MSU have a research climate across the university, across disciplines?

#### **PARTICIPANTS**

Adrienne Robyn Minerick – Chem Engin
Carolyn Adams-Price – Psychology
Charles Pittman – Chemistry
Colin Scanes – VP Research
Erodogan Menili – Animal/Dairy Sciences
Jane Greenwood – Architecture
Mark Goodman – FS President/Comm
Nara Gavini – Biological Sciences
Peter Wood – Sociology
Robert Wolverton – Library
Stephanie Doane – Psychology
Vance Watson – VP DAFVM
Wayne Philley – Plant & Soil Sciences

Alan Wood - Biotechnology
Charles Lee - MSU President
Charles Rivenburgh - Intellectual Prop
Doug Marshall - Food Science
Frank Howell - Sociology
Lynne Cossman - Sociology
Mike Mazzola - Computer Engin
Peter Rabideau - Provost
Raymond Winton - Electrical Engin
Shane Burgess - CVM
Tony Vizzini - Aerospace Engin
Walter Diehl - Biological Sciences
Duane Motsenbocker - Food & Fiber

### **PATENTS**

Data provided by the Office of Research indicated there were 7 patents issued in 2001, 22 invention disclosures and 17 patents filed. Research expenditures totaled \$147 million. The low number of business initiatives and patents issued concern state and

federal officials who have assisted State in obtaining some of that money, threatening MSU's future ability to obtain large grants. Issued discussed:

- 1. Few faculty members are aware of patent, copyright, or licensing possibilities.
- 2. No office on campus makes a consistent effort to educate the faculty.
- 3. The processes are time consuming and require expertise.
- 4. One staff member in the Office of Research is available to assist faculty.
- 5. Successful applications require an analysis of marketing opportunities.
- 6. Chances of success increase when faculty members work directly with industry.
- 7. Division of Agriculture, Forestry, and Veterinary Medicine dominates the existing patents because faculty are hired to fit specific research needs and because of long-standing relationships with industry. Industry sometimes prompts research; researchers sometimes drive industry interests.

## Suggestions:

- The Office of Research should develop an informational packet for all faculty
  providing the basics on patents, copyrights, and licensing. Unidentified
  opportunities may exist at State if faculty knew more and understood that
  administrative support was available.
- 2. The Vice President for Research should meet with deans, center directors, and department heads for the purpose of identifying existing research that have immediate copyright, patent, or licensing potential. Expertise should be provided to move these efforts forward.

- Faculty members should be identified whose research has copyright, patent, or licensing potential. Office of Research should assist those faculty in moving their research into these directions.
- 4. Interdisciplinary research through existing or new research centers/institutions could stimulate new initiatives.

#### **BUSINESS INITIATIVES**

Many of the same issues that effect patent development also come into play in creating new business initiatives. Business initiatives have the advantage of leading to economic growth and business development. MSU needs to be an intellectural engine for research and development in Mississippi. Additional factors that impact business initiatives include:

- 1. Universities generally are not culturally attuned to business initiatives.
- 2. Lack of space to house new businesses. Locations need to have high tech facilities.
- 3. Lack of seed capital and venture capital.
- 4. The knowledge of the university faculty may provide opportunities to license know-how and copyright intellectual property.

## Suggestions:

5. The Office of Research should develop an informational packet for all faculty providing the basics on business initiatives. Unidentified opportunities may exist at State if faculty knew more and understood that administrative support was available.

- 6. The Vice President for Research should meet with deans, center directors, and department heads for the purpose of identifying existing research that have immediate business potential. Expertise should be provided to move these efforts forward.
- 7. Faculty members should be identified whose research has business or licensing potential. Office of Research should assist those faculty in moving their research into these directions.

Interdisciplinary research through existing or new research centers/institutions could stimulate new business initiatives.

#### RESEARCH CLIMATE

State has pockets of faculty members that create world-class research. Most university faculty engage in some research efforts, which contribute intellectually and creatively to the reputation of the university. Fortunately, good researchers contribution to a research climate in their departments, leading to more research, know-how, and mentoring for assistant professors. Unfortunately, departments that have poor research records likely will lack the faculty, the knowledge or know-how to improve their research efforts. The responsibility for either of these situations primarily rests on individual faculty members and department heads. As a result of the research climate at MSU, aggressive faculty researchers generally have successful careers because they overcome obstacles and make the system work for them.

The essential tools for quality research at MSU are these:

- a. bureaucratic support;
- b. quality graduate students;

- c. competitive graduate student stipends and benefits;
- d. interdisciplinary opportunities;
- e. a system for the collection of information on what research is being done and by whom;
- f. a vibrant intellectual climate at MSU;
- g. faculty involvement in the recruitment of graduate students through better cooperation with The Graduate Office;
- h. library support for research;
- i. computer support for research;
- j. staff support and expertise in research areas;
- k. a quality promotion and tenure process;
- l. mentoring for junior faculty.

## Suggestions

- 1. Improve the quality of life for graduate students;
- 2. Provide health insurance as part of the graduate stipend;
- 3. Give faculty more flexibility to recruit graduate students to their research;
- 4. Identify a mechanism for supporting research computing needs;
- 5. Monetary support for the top researchers;
- 6. Non-monetary support for the top researchers;
- 7. Identify departments that are research leaders and have those departments assist weaker departments;
- 8. Support faculty mentoring.

# **SUMMARY**

Improving research at MSU will have many direct benefits and intangible advantages. Research generates money for the institution and for departments. Research can be financially rewarding for faculty members. Research can provide an engine for economic development. Research is a stimulus for the intellectual and cultural life of the university and of the state. Quality researchers will be the best teachers and provide the greatest service to the university, to the state, and to the world.